National Hiatal Surgical Registry

2nd Annual Report 2023



Message from the NHSR Chair and Society Presidents:

We delightfully present the Second Annual Report of the National Hiatal Surgery Registry (NHSR). NHSR is the first Surgical Registry in the UK for Benign Hiatal Surgical Disease with outcomes being decided by the experience of end-users, our patients.

Since its inauguration at the Annual AUGIS Conference in Belfast 2021, NHSR has been engaged widely by the UK hiatal surgeons in England, Wales, Scotland and Northern Ireland. Other Upper GI specialities (bariatrics and cancer resection) have benefited from detailed analysis of the quality and effectiveness of these procedures for some time by using Registry data input.

We do not currently know how effective outcomes from hiatal surgery in the UK are at a national level.

On behalf of AUGIS and the entire NHSR Committee, we would like to thank all our peer Upper Gastrointestinal Surgeons for taking the time to input their valuable data into this long overdue Registry.

We aim to publish <u>NHSR</u> reports annually. We also aim to present this report at the AUGIS National Conference in 2023. Needless to say, the reports will be based on the outcomes of Trusts and Private Healthcare Organisations rather than individual surgeons.

We look forward to your ongoing contribution to this novel project and a more considerable success in years to come.

Best Wishes

Sayan Bhattacharya

Mr Sayan Bhattacharya NHSR Committee Chair

S Andrews

Mr Stuart Andrews AUGIS Council NHSR Lead



NHSR 2023 National Hiatal Surgery Registry Report

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Executive Summary of Report

The purpose of the National Hiatal Surgical Registry (NHSR) is to provide surgeons with an effective tool to be reflective about their practice in the treatment of hiatal surgical disease and at a national level benchmark outcomes for hiatal surgical procedures across the UK.

The NHSR is a database that will allow surgeons voluntarily to enter meaningful and useful information about the hiatal surgery they perform to audit their outcomes, reference themselves against peer outcomes and assist with an appraisal.

The Registry is free to use for all GMC registered surgeons concerning hiatal surgery conducted in the UK within the NHS and Independent Healthcare Sector, that are members of AUGIS/BBUGSS/ALSGBI/ASGBI/RCS Ed/Eng.

Hiatal surgery encompasses surgical procedures for treating benign upper gastrointestinal conditions related to the hiatus of the diaphragm. These pathological conditions include gastro-oesophageal reflux disease, symptomatic hiatus hernias, hybrid reflux/hiatus hernia disease and achalasia. The surgical procedures described under hiatal surgery include- Primary Anti-Reflux Surgery (both Fundoplication and Magnetic Sphincter Augmentation LINX[™]), Primary Hiatus Hernia Repair, Hybrid Anti-Reflux /Hiatus Hernia Surgery and Cardiomyotomy. Also included is Revisional surgery of these procedure types.

The Registry does not at present include endoluminal procedures.

NHSR uses a classification system of hiatal disease defined by the British Benign Upper GI Surgical Society <u>Home | British Benign Upper Gastro Intestinal Society (bbugss.com)</u> for Registry reporting.

The Registry records patient selection, pre-operative investigations, intra-operative techniques, volumes of practice and most importantly, Quality of Life (QoL) outcomes before and after procedures.

The Registry uses Patient Reported Outcome Measures (PROMs) to record the profile of pre and post-procedure QoL scores and reflect procedure effectiveness.

The Registry will automatically contact patients that have been entered (with their consent-see GDPR policy <u>Downloads – National Hiatal Surgery Registry (nhsr.org</u>)) concerning their symptoms using the QoL evaluation relevant for their condition at -6 months /-1 year /-2 years /-3 years/-4 years /-5 years after their surgery. The data will automatically be entered into Users accounts.

For Primary Anti-Reflux procedures and Hybrid Anti-Reflux/Hiatus Hernia procedures, the Registry will use GORD-QoL (<u>Downloads – National Hiatal Surgery Registry (nhsr.org</u>)) scores and the need for continued anti-acid medication use as outcome measures.

For Cardiomyotomy surgery, Eckhardt scores (<u>Downloads – National Hiatal Surgery Registry</u> (<u>nhsr.org</u>)) are used.

For Hiatus Hernia Repair pre-operative and post-operative Hiatus Hernia-QoL score will be used (<u>Downloads – National Hiatal Surgery Registry (nhsr.org</u>)).

Surgeons will be able to download a personal report populated by information they have entered and data the NHSR follow-up system has provided, for the purpose of their appraisal.

A National Annual Report will also be delivered each year at the AUGIS Annual Scientific Meeting and be publicly available.

This report will <u>not be</u> at the Surgeon level but at the Unit level. Volumes of activity, complication rates, and follow up QoL outcomes will be reported.

Individual surgeon users will only be able to see their outcomes, and these will be statistically referenced against the average of other surgeons anonymised outcomes for the same conditions.

As an NHSR User, you will <u>not</u> be able to see other surgeons outcomes.

The information collected about both surgeons and patients is entirely confidential and will never be shared with any other organisation without your/their permission (see GDPR policy).

The Registry will not monitor/report/act on any individual or Unit data outcomes, individual outcomes are for confidential interpretation and reflection, Unit outcomes can be seen publicly.

The Registry is governed by the AUGIS Executive/BBUGSS Council and a surgeons committee (NHSR Committee).

NHSR is operated on behalf of AUGIS by an IT Healthcare Company bound by GDPR confidentiality law. NHSR is Information Commissioner Office (ICO), Care Quality Commission (CQC) and NHS Digital registered and regulated that is data safety compliant.

The Registry is not recognised as a research tool and cannot be used as a research tool but maybe provide pilot data for research activity.

The Registry aims to more specifically classify hiatal surgery to report a more meaningful comparison of outcomes.

NHSR Patient Status Definition

Active Patients- A patient entered into the NHSR, but not all data fields for that patient completed. These patients are thus not included in statistical analysis and not eligible for Patient Report Outcome Measures (PROMs).

Complete Patients- Patients have all data fields completed and thus are eligible for progression into PROMs and their data is included in statistical analysis.

PROMs Patients- Patients who have completed their data entry and are passing through their post-operative period of PROMs follow-up for 5 years and are included for statistical analysis.

At the time of this report there are currently 121 Consultant users from 70 registered centres in both NHS and Independent Healthcare Sector, with currently 590 patients registered either in the Active or Complete phase.

All Trustx/Organisations 121 34 166 Aneurin Bevan University Health Board 4 3 13 BMI HealthCare 14 1 2 Croydon Health Services NHS Trust 1 1 9 Epson and St. Heller University Hospitals NHS Trust 2 1 9 Frintley Health Services NHS Trust 2 1 2 Frintley Health NHS Foundation Trust 3 1 2 Gloucesterenth Hospitals NHS Trust 3 2 28 Northamptonshire Healthcare NHS Foundation Trust 3 1 2 Portsmouth Hospitals NHS Trust 4 1 0 Ramsay Health Care UK 11 1 1 Royal Berkahire NHS Foundation Trust 3 1 1 Royal United Hospitals NHS Trust 3 1 1 Royal Correul Hospitals NHS Trust 3 1 1 Royal Correul Hospitals NHS Foundation Trust 1 1 1 Royal Correul Hospitals NHS Foundation Trust 1 1 <	375 16 10 30 21 6 18 9 23 40	541 29 12 39 30 8 23 23 10 26
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Torbay and South Devon NHS Foundation Trust 6 6 18	45	63
University Hospital Southampton NHS Foundation Trust 2 1 3	17	20
University Hospitals Coventry and Warwickshire NHS Trust 4 1 6	11	17
University Hospitals Sussex NHS Foundation Trust 2 1 8	1	9
University Hospitals of North Midlands NHS Trust 2 1 3	3	6
West Suffolk NHS Foundation Trust 2 2 9	Ŭ	33

Centres and Patients Registered with NHSR in the UK (Active and Complete)

Summary of NHS/Private Healthcare Providers that have registered with NHSR and submitted at <u>least</u> one patient.



NHS Trusts and Private Healthcare Organisation's Registered with NHSR



Private Centres of Practice Registered with NHSR

Primary Anti-Reflux Surgery (Fundoplication)- All Trusts/Organisations

220 registered patients, 88 active, 132 complete, from 22 NHS Trusts/Independent HealthCare Organisations



On-Lay Mesh Bridging Mesh

Crural

Relaxation

*To appear in statistical analysis the patient must have a complete status

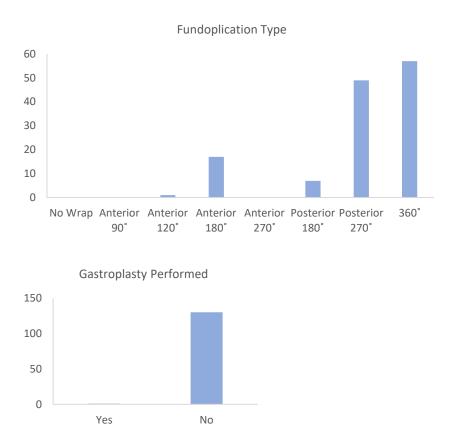
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(Suture Only)

Primary Repair Pledget/Strip

Mesh

20 0



Combined UK GERD-QoL Score PROMs- Primary Anti-Reflux Surgery (Fundoplication) All NHS Trusts & Independent HealthCare Organisations



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Individual UK GERD-QoL Score PROMs- Primary Anti-Reflux Surgery (Fundoplication) All NHS Trusts & Independent HealthCare Organisations who have entered a patient in this category

dividual Trusts and Organisations compared to Overall Trust:	s/Organisa	tions Data				Inside	+/- 2 \$	SEs (95	% CI)		0	Outside	e+/- 2 S	Es (95	5% CI)	ł
Trust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)		th QoL vement +/-		r QoL vement +/-	2 yes Impro Score	ar QoL wement +/-		er QoL vernent +/-	4 year Improve Score		5 yea Improv Score	rement
Overall Trusts/Organisations	132	6 4.55%	-	29.3	4.5	84.6%	5.8	80.2%	5.0	82.9%	-	-	-	-	-	-
Aneurin Bevan University Health Board [4]	3	-	-	19.7	6.3	68.0%	-	-	-	-	-	-	-	-	-	-
BMI Healthcare [14]	7	-	-	24.6	7.9	67.9%	7.8	68.3%	-	-	-	-	-	-	-	-
Croydon Health Services NHS Trust [1]	17	-	-	25.8	4.3	83.3%	3.3	87.2%	-	-	-	-	-	-	-	-
Frimley Health NHS Foundation Trust [4]	3	-	-	23.3	2.3	90.1%	-	-	-	-	-	-	-	-	-	-
Gloucestershire Hospitals NHS Foundation Trust [3]	7	-	-	28.6	1.6	94.4%	6.6	76.9%	-	-	-	-	-	-	-	-
Leeds Teaching Hospitals NHS Trust [3]	3	1 33.33%	-	32.0	9.3	70.9%	5.0	84.4%	-	-	-	-	-	-	-	-
Manchester University NHS Foundation Trust [3]	10	-	-	42.9	5.3	87.6%	10.8	74.8%	-	-	-	-	-	-	-	-
Northamptonshire Healthcare NHS Foundation Trust [3]	12	1 8.33%	-	33.2	5.7	82.8%	4.0	88.0%	-	-	-	-	-	-	-	-
Nuffield Health [13]	8	2 25.00%	-	26.4	3.8	85.6%	12.0	54.5%	-	-	-	-	-	-	-	-
Portsmouth Hospitals NHS Trust [4]	1	-	-	37.0	9.0	75.7%	-	-	-	-	-	-	-	-	-	-
Ramsay Health Care UK [11]	3	1 33.33%	-	40.3	2.0	95.0%	-	-	-	-	-	-	-	-	-	-
Royal United Hospitals Bath NHS Foundation Trust [1]	4		-	25.8	1.0	96.1%	3.3	87.2%	-	-	-	-	-	-	-	-
Sandwell and West Birmingham Hospitals NHS Trust [2]	1		-	19.0	2.0	89.5%	4.0	78.9%	-	-	-	-	-	-	-	-
South Tees Hospitals NHS Foundation Trust [1]	9	-	-	30.9	4.4	85.8%	4.8	84.5%	-	-	-	-	-	-	-	-
Southern Health and Social Care Trust [1]	2	-	-	43.0	-	-	3.0	93.0%	-	-	-	-	-	-	-	-
St. George's University Hospitals NHS Foundation Trust [2]	1	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-
The Dudley Group NHS Foundation Trust [1]	3	-	-	19.0	1.3	93.2%	0.7	96.3%	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	13	1 7.60%	-	30.8	3.7	88.0%	4.0	87.0%	5.0	83.8%	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	5	-	-	32.4	5.2	84.0%	-	-	-	-	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	4	-		25.5	12.8	49.8%	13.3	47.8%	-	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	1	-	-	15.0	4.0	73.3%	10.0	33.3%	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	15	-	-	25.5	2.8	89.0%	4.4	82.7%	-	-	-	-	-	-	-	-
174 trusts found for Primary Anti-Reflux Surgery (Fundoplication) sort	ed by name (a	alphabeticall	y ascending)													

* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX[™])- All Trusts/Organisations

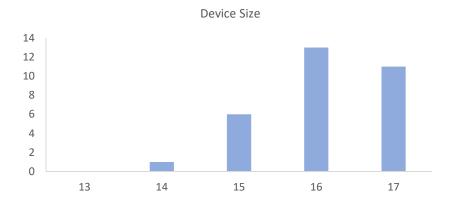
57 registered patients, 26 active, 31 complete, from 4 NHS Trusts/Independent HealthCare Organisations



*To appear in statistical analysis the patient must have a complete status



(Suture Only)



Combined UK GERD-QoL Score PROMs- Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX[™]) All NHS Trusts & Independent HealthCare Organisations



Individual UK GERD-QoL Score PROMs- Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX™) All NHS Trusts & Independent HealthCare Organisations who have entered a patient in this category

Trust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)		vement +/-		vement +/-	2 yea Improv Score		3 year Improve Score		4 year Improve Score		5 year Improve Score	emer
Overall Trusts/Organisations	31	2 6.45%	-	28.0	5.7	79.6%	5.9	78.9%	-	-	-	-	-	-	-	-
Aneurin Bevan University Health Board [4]	6	-	-	21.8	-	-	-	-	-	-	-	-	-	-	-	-
Epsom and St. Helier University Hospitals NHS Trust [2]	15	2 13.33%	-	26.9	1.9	92.9%	3.4	87.4%	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	7	-	-	34.9	13.6	61.0%	10.8	69.1%	-	-	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	3	-	-	29.3	6.0	79.5%	-	-	-	-	-	-	-	-	-	-
174 trusts found for Primary Anti-Reflux Surgery (Magnetic Sphinct	er Augmenta	tion LINX™) s	orted by nar	ne (alphabetica	lly asce	nding).										

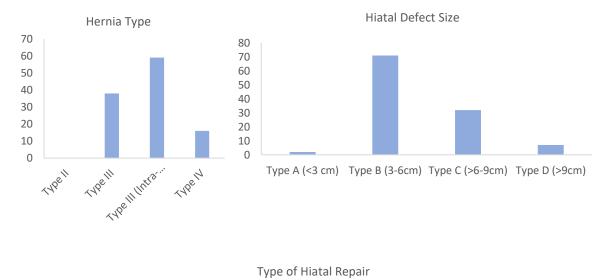


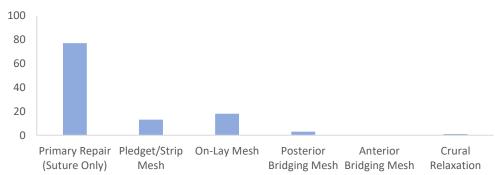
Primary Hiatus Hernia Repair- All Trusts/Organisations

162 registered patients, 49 active, 113 complete, from 17 NHS Trusts/Independent HealthCare Organisations

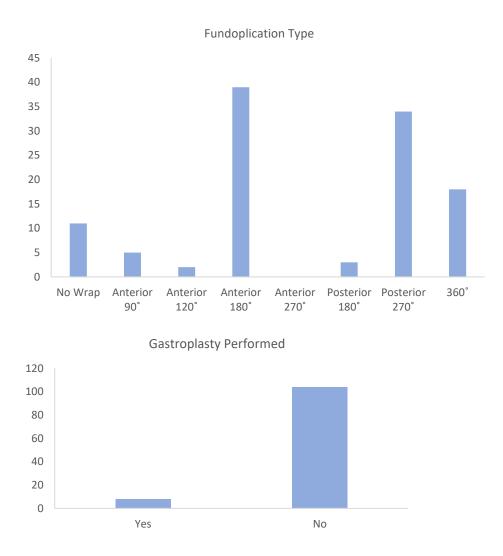


*To appear in statistical analysis the patient must have a complete or in PROM status

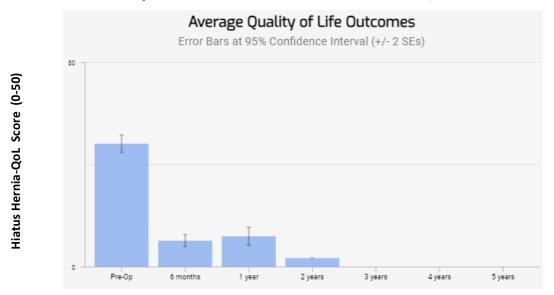








Combined UK Hiatus Hernia-QoL Score PROMs- Primary Hiatus Hernia Repair All NHS Trusts & Independent HealthCare Organisations





Individual UK Hiatus Hernia-QoL Score PROMs- Primary Hiatus Hernia Repair All NHS Trusts & Independent HealthCare Organisations who have entered a patient in this category

ust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)		th QoL vement +/-		r QoL vement +/-		er QoL verment +/-	3 year Improvi Score		4 year Improv Score		5 year Improv Score	emer
verall Trusts/Organisations	113	9 7.96%	-	27.7	5.5	80.1%	6.5	76.5%	2.0	92.8%	-	-	-	-	-	-
neurin Bevan University Health Board [4]	2		-	17.0	-	-	-	-	-	-	-	-	-	-	-	-
MI Healthcare [14]	3	-	-	24.0	3.0	87.5%	4.0	83.3%	-	-	-	-	-	-	-	-
roydon Health Services NHS Trust [1]	7	1 14.29%	-	24.1	6.3	73.9%	6.0	75.1 _%	-	-	-	-	-	-	-	-
psom and St. Helier University Hospitals NHS Trust [2]	5	1 20.00%	-	28.6	5.6	80.4%	6.0	79.0%	-	-	-	-	-	-	-	-
imley Health NHS Foundation Trust [4]	2	-	-	30.5	0.5	98.4%	-	-	-	-	-	-	-	-	-	-
loucestershire Hospitals NHS Foundation Trust [3]	8	1 12.50%	-	25.9	4.0	84.6%	8.0	69.1s	-	-	-	-	-	-	-	-
eeds Teaching Hospitals NHS Trust [3]	2		-	42.0	3.0	92.9%	2.0	95.2 _%	-	-	-	-	-	-	-	-
anchester University NHS Foundation Trust [3]	6	-	-	44.0	6.8	84.5%	3.5	92.0%	-	-	-	-	-	-	-	-
orthamptonshire Healthcare NHS Foundation Trust [3]	16	-	-	30.9	3.7	88.0%	7.5	75.7%	-	-	-	-	-	-	-	-
oyal United Hospitals Bath NHS Foundation Trust [1]	1	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	•
outh Tees Hospitals NHS Foundation Trust [1]	17	2 11.76%	-	24.4	10.2	58.2%	10.1	58.6%	-	-	-	-	-	-	-	-
outhern Health and Social Care Trust [1]	13	3 23.08%	-	25.5	4.5	82.4%	5.4	78.8%	-	-	-	-	-	-	-	-
orbay and South Devon NHS Foundation Trust [6]	14	1 7.14%	-	30.9	5.4	82.5%	3.9	87.4%	2.0	93.5%	-	-	-	-	-	-
niversity Hospital Southampton NHS Foundation Trust [2]	7	-	-	23.4	5.9	74.8%	-	-	-	-	-	-	-	-	-	-
niversity Hospitals Coventry and Warwickshire NHS Trust [4]	5	-	-	17.6	6.2	64.8%	7.3	58.5%	-	-	-	-	-	-	-	-
niversity Hospitals Sussex NHS Foundation Trust [2]	1	-	-	39.0	1.0	97.4%	-	-	-	-	-	-	-	-	-	-
est Suffolk NHS Foundation Trust [2]	4		-	28.0	1.5	94.6%	1.7	93.9%	-	-	-	-	-	-	-	

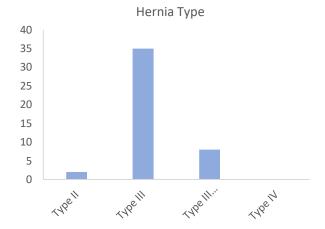
NHSR 2023 National Hiatal Surgery Registry Report

Hybrid Anti-Reflux/Hiatus Hernia Surgery- All Trusts/Organisations

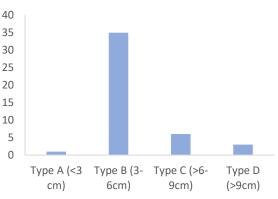
70 registered patients, 25 active, 45 complete from 11 NHS Trusts/Independent HealthCare Organisations

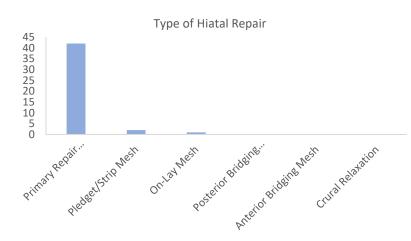


*To appear in statistical analysis the patient must have a complete or in PROM status

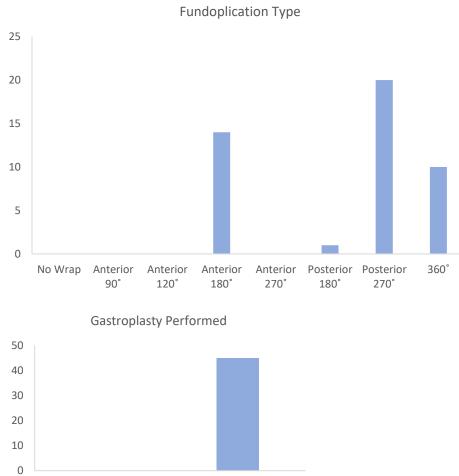






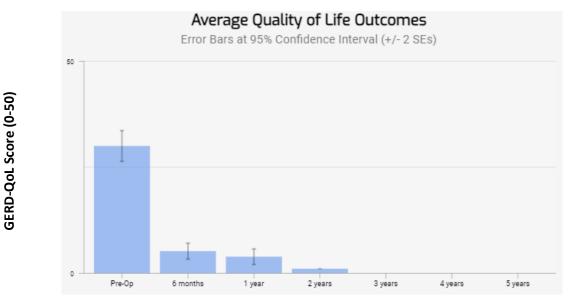








Combined UK GERD-QoL Score PROMs- Hybrid Anti-Reflux/Hiatus Hernia Surgery All NHS Trusts & Independent HealthCare Organisations



Individual UK GERD-QoL Score PROMs- Hybrid Anti-Reflux/Hiatus Hernia Surgery All NHS Trusts & Independent HealthCare Organisations who have entered a patient in this category

Trust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)		vernent +/-		er QoL vement +/-		vernent +/-	3 year Improv Score		4 yea Improv Score		5 year Improv Score	/eme
Overall Trusts/Organisations	45	2 4.44%	-	27.6	3.8	86.2%	2.7	90.2%	1.0	96.4%	-	-	-	-	-	-
Aneurin Bevan University Health Board [4]	4	-	-	27.0	2.0	92.6%	-	-	-	-	-	-	-	-	-	-
Croydon Health Services NHS Trust [1]	6	1 16.67%	-	27.3	6.8	75.1%	8.7	68.1%	-	-	-	-	-	-	-	-
Epsom and St. Helier University Hospitals NHS Trust [2]	1	-	-	9.0	-	-	-	-	-	-	-	-	-	-	-	-
Manchester University NHS Foundation Trust [3]	6	-	-	43.0	3.8	91.2%	0.8	98.1%	-	-	-	-	-	-	-	-
Northamptonshire Healthcare NHS Foundation Trust [3]	4	-	-	17.5	0.7	96.0%	0.8	95.4%	-	-	-	-	-	-	-	-
Nuffield Health [13]	2	-	-	21.0	0.5	97.6%	1.0	95.2%	-	-	-	-	-	-	-	-
Ramsay Health Care UK [11]	1	-	-	36.0	-	-	-	-	-	-	-	-	-	-	-	-
South Tees Hospitals NHS Foundation Trust [1]	16	-	-	28.3	4.8	83.0%	3.0	89.4%	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	2	1 50.00%	-	19.0	2.5	86.8%	3.0	84.2%	1.0	94.7%	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	2	-	-	21.0	2.5	88.1%	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	1	-		24.0	3.0	87.5%	3.0	87.5%	-	-	-	-	-	-	-	

* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

NHSR 2023 National Hiatal Surgery Registry Report

Cardiomyotomy Surgery- All Trusts/Organisations

44 registered patients, 14 active, 30 complete, from 11 NHS Trusts/Independent HealthCare Organisations

Patient Gender Gende 53.3 % Male Female Othe Patient Age Patient ASA (Percentage Split %) ASA • 20-29 20-29
30-39
40-49
50-59
60-69
70-79 10.0% 30.0% 30.0% 16.7 20-29 50-59 60-69 70-79 80-89 66.7 10.0% 167 ш IV Hiatal Defect Size Hiatus Hernia Present 30 25 25 20 20 15 15 10 10

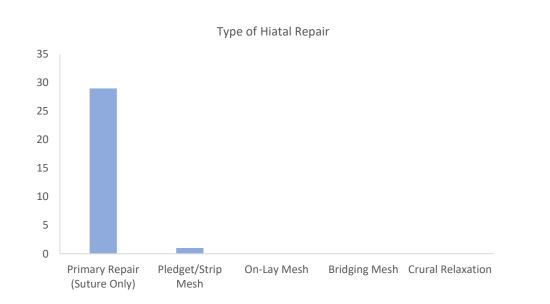
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0

Type A (<3 cm) Type B (3-6cm) Type C (>6- Type D (>9cm)

9cm)

*To appear in statistical analysis the patient must have a complete or in PROM status



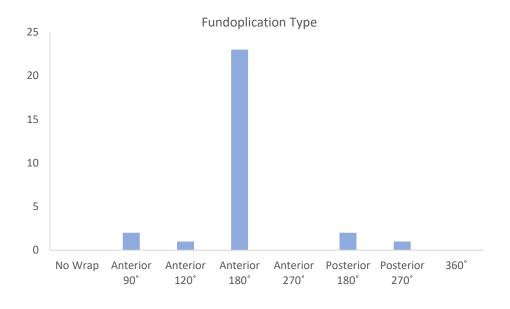


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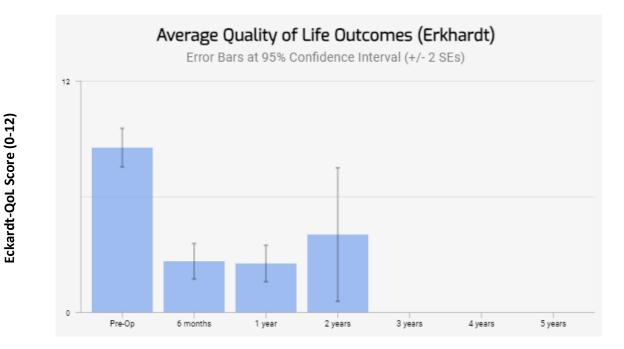
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Yes

No



Combined UK Eckardt-QoL Score PROMs- Cardiomyotomy All NHS Trusts & Independent HealthCare Organisations



Individual UK Eckardt-QoL Score PROMs- Cardiomyotomy All NHS Trusts & Independent HealthCare Organisations who have entered a patient in this category

rust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)		vement +/-		vement +/-		vernent +/-	3 year Improve Score		4 year Improv Score		5 year Improv Score	vem
Overall Trusts/Organisations	30	1 3.33%	-	7.4	2.0	73.0%	1.6	78.4%	3.5	52.7%	-	-	-	-	-	
Aneurin Bevan University Health Board [4]	1	-	-	8.0	-	-	-	-	-	-	-	-	-	-	-	
Frimley Health NHS Foundation Trust [4]	1	-	-	6.0	1.0	83.3%	-	-	-	-	-	-	-	-	-	
eeds Teaching Hospitals NHS Trust [3]	2	-	-	7.5	1.0	86.7%	-	-	-	-	-	-	-	-	-	
Manchester University NHS Foundation Trust [3]	1	-	-	12.0	-	-	-	-	-	-	-	-	-	-	-	
Northamptonshire Healthcare NHS Foundation Trust [3]	4	-	-	5.8	1.7	70.7%	1.0	82.8%	-	-	-	-	-	-	-	
Nuffield Health [13]	1	-	-	7.0	1.0	85.7%	-	-	-	-	-	-	-	-	-	
Royal United Hospitals Bath NHS Foundation Trust [1]	1	-	-	4.0	4.0	0.0%	-	-	-	-	-	-	-	-	-	
South Tees Hospitals NHS Foundation Trust [1]	4	-	-	9.8	2.8	71.4%	1.3	86.7%	-	-	-	-	-	-	-	
Southern Health and Social Care Trust [1]	6	-	-	6.2	2.7	56.5%	1.5	75.8%	-	-	-	-	-	-	-	
Forbay and South Devon NHS Foundation Trust [6]	7	1 14.29%	-	8.6	1.6	81.4%	1.9	77.9%	2.0	76.7%	-	-	-	-	-	
Iniversity Hospitals of North Midlands NHS Trust [2]	2	-		6.0	3.0	50.0%	3.0	50.0%	5.0	16.7%	-	-	-	_	-	

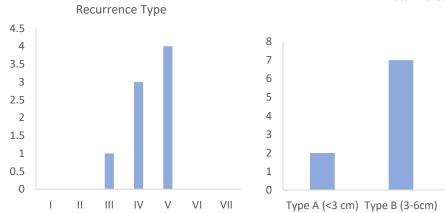
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Revisional Anti-Reflux Surgery- All Trusts/Organisations

20 registered patients, 10 active, 10 complete from 5 NHS Trusts/Independent HealthCare Organisations

*To appear in statistical analysis the patient must have a complete or in PROM status



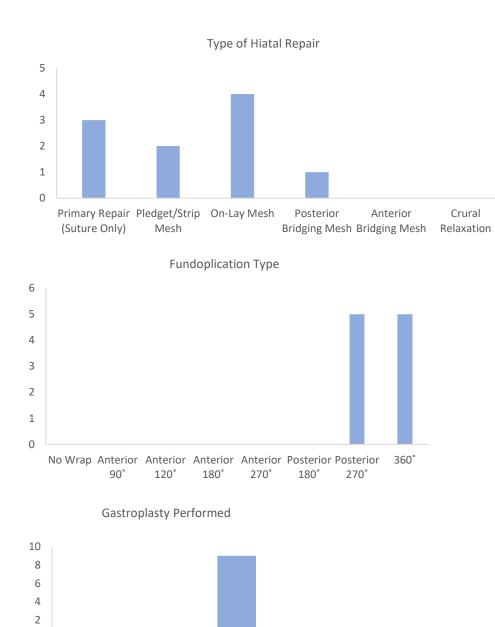


Hiatal Defect Size

Type C (>6-

9cm)

Type D (>9cm)



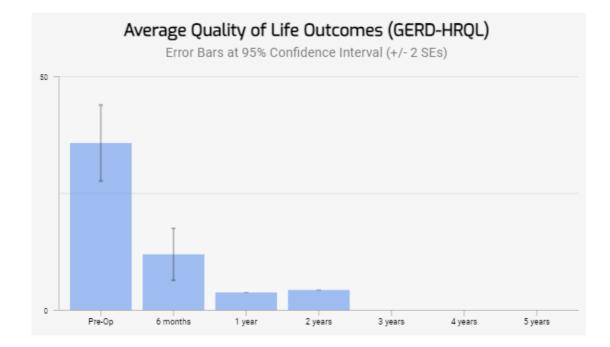


No

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Yes

Combined UK GERD-QoL Score PROMs- Revisional Anti-Reflux Surgery All NHS Trusts & Independent HealthCare Organisations



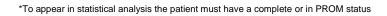
Individual UK GERD-QoL Score PROMs- Revisional Anti-Reflux All NHS Trusts & Independent HealthCare Organisations Surgery who have entered a patient in this category

Trust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)		nth QoL vement +/-		vement +/-		vement +/-	3 year Improv Score		4 year Improve Score	ement	5 year Improve Score	ement
Overall Trusts/Organisations	10	1 10.00%	-	32.9	9.4	71.4%	2.8	91.5%	4.0	87.8%	-	-	-	-	-	-
Gloucestershire Hospitals NHS Foundation Trust [3]	1	-	-	37.0	4.0	89.2%	-	-	-	-	-	-	-	-	-	-
Northamptonshire Healthcare NHS Foundation Trust [3]	3	-	-	25.0	10.7	57.2%	-	-	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	2	1 50.00%	-	47.5	25.0	47.4%	3.0	93.7%	4.0	91.6%	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	1	-	-	45.0	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	3			25.7	5.0	80.5%	4.0	84.4%	-	-	-	-	-	-	-	-

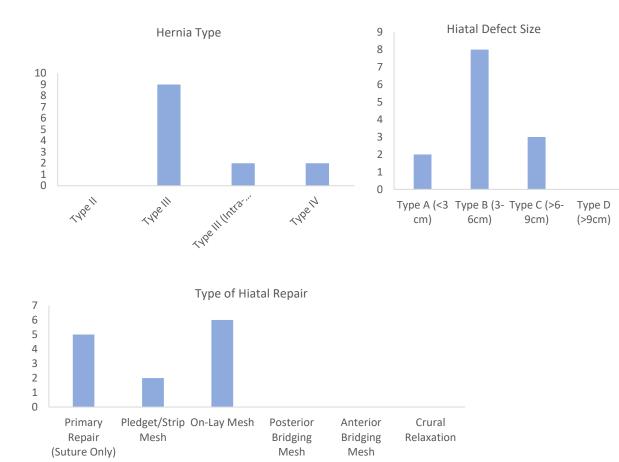
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Revisional Hiatal Hernia Surgery- All Trusts/Organisations

16 registered patients, 3 active, 13 complete, from 6 NHS Trusts/Independent HealthCare Organisations

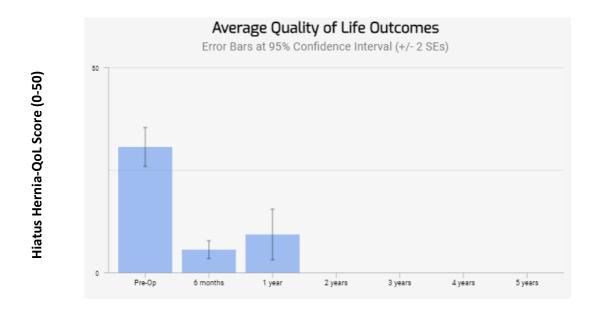








Combined UK Hiatus Hernia-QoL Score PROMs- Revisional Hiatus Hernia Repair All NHS Trusts & Independent HealthCare Organisations



Individual UK Hiatus Hernia-QoL Score PROMs- Revisional Hiatus Hernia Repair All NHS Trusts & Independent HealthCare Organisations who have entered a patient in this category

Frust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)	6 mon Impro Score	th QoL vement +/-		vernent +/-	2 year Improve Score		3 year Improve Score		4 year Improve Score		5 year Improv Score	/ement
overall Trusts/Organisations	13	-	-	28.2	5.1	81.9%	5.4	80.9%	-	-	-	-	-	-	-	-
Bloucestershire Hospitals NHS Foundation Trust [3]	2	-		33.0	7.0	78.8%	6.0	81.8%	-	-	-	-	-	-	-	-
eeds Teaching Hospitals NHS Trust [3]	2	-	-	30.5	8.0	73.8%	7.5	75.4%	-	-	-	-	-	-	-	-
Northamptonshire Healthcare NHS Foundation Trust [3]	1	-		43.0	2.0	95.3%	-	-	-	-	-	-	-	-	-	-
South Tees Hospitals NHS Foundation Trust [1]	4	-		25.8	7.0	72.9%	7.3	71.7%	-	-	-	-	-	-	-	-
Southern Health and Social Care Trust [1]	3	-		26.3	3.0	88.6%	-	-	-	-	-	-	-	-	-	-
Nest Suffolk NHS Foundation Trust [2]	1	-		15.0	1.0	93.3%	-	-	-	-	-	-	-	-	-	-

* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Executive Summary

Currently from the centres that have engaged, the NHSR reports excellent improvement in patient-reported QoL outcomes for all aspects of benign hiatal surgery. The grouped UK outcomes show statistically significant improvements in QoL score from pre-procedure baseline, to post procedure measurements in all subsets of Hiatal Surgery. These improvements seem to be maintained at the 1 year post-operatively. As the Registry matures it will be apparent if this trend continues.

Individually all centres submitting data show statistically significant improvement with patient reported improvement of QoL scores in all areas of hiatal surgery, there are no outliers in practice.

Data volume has significantly increased since the last NHSR Report and is set to increase over time building a picture of Hiatal Surgery outcomes in the UK.

1. Introduction to National Hiatal Surgery Registry (NHSR)

Hiatal surgery encompasses surgical procedures for treating benign upper gastrointestinal conditions related to the hiatus of the diaphragm. These pathological conditions include Gastro-Oesophageal Reflux Disease, symptomatic Hiatus Hernias and Achalasia. The surgical procedures described under hiatal surgery include- Anti-Reflux Surgery (both Fundoplication and Magnetic Sphincter Augmentation LINX[™]), Hybrid Anti-Reflux/Hiatus Hernia Surgery, Primary Hiatus Hernia Repair and Cardiomyotomy; the Registry does not at present include endoluminal procedures.

The current focus in surgery is to ensure standards of safety and quality. Outcomes for the vast majority of hiatal surgery outside the context of emergency intervention (acute hiatus hernia volvulus) are primarily based on long term Quality of Life Improvement (QoLs), of which we have little or no data on a national level. Multiple publications from different centres on long-term outcomes after anti-reflux surgery show us what good outcomes look like in high-volume units with interest in the condition. What is unknown is whether or not all UK providers of hiatal surgery have similar outcomes and patients are receiving equity of care. Experience from other disciplines in Upper GI Surgery suggest the link between outcome quality and volume, it is a reasonable assumption that hiatal surgery is similar.

Hospital Episode Statistics (HES) data can provide a broad measurement of hiatal surgery's safety and quality by providing information on the volume of activity, conversion rates, length of stay and readmission rates. These are essentially short-term outcome performance indicators, but do not provide important information about the longer-term QoL outcome benefits for patients having hiatal procedures. HES has no ability to record this data both now or in the near future.

Currently, hiatal operations are classified by coders using Office of Population Censuses and Surveys (OPCS4) codes to report specific operation types. These codes do not accurately allow classification of the symptoms that are being treated or the operation being performed

anti-reflux surgery carries code G243/G249

hiatus hernia carries code G233

The codes are often bundled together when the primary intent of the surgery is variable, and thus interpretation of outcomes based on these codes is confused. This Registry will use a classification system for defining which type of hiatal pathology is being treated and the specific procedure being provided rather than using the broad OPCS4 codes used by HES. NHSR moves away from the ambiguous system currently used.

Definitions for procedures can be found on the NHSR website or when entering data into the live database and are also detailed below in this report.

The level of detail recorded by the Registry pre-operatively and intra-operatively is currently far beyond what can be obtained and reported from HES. The NHSR committee has selected the information it believes is of most value for surgeons to audit, compare, and help future practice. The most important function of this Registry is to provide an automated system to collect and report Patient Reported Outcome Measures (PROMs). The Registry is designed to allow patient data entry for both the NHS and Independent Healthcare Sector. Users will be able to download a report about their practice from the Registry dashboard and also be able to download a Surgeons Report benchmarking them against the average outcomes and performance of their peers nationwide. Users can select multiple centres they deliver care from. If Users move hospital, their personal outcomes will follow them, but historical activity will stay within the centre where they performed the surgery.

The process of PROMs follow-up will be automated and conducted by the NHSR administration team, and the data reported back will automatically appear in Users procedure dashboard when received back from patients. NHSR will inform Users if their patient is not responding to follow-up information requests.

The National Hiatal Surgical Registry (NHSR) aims to provide surgeons with an effective tool to be reflective in their surgical practice in treating hiatal disease and benchmark outcomes for hiatal surgical procedures across the UK.

The Registry is free for all GMC registered surgeons with respect to hiatal surgery conducted within the UK for NHS and Independent Sector Practice. That are members of BBUGSS/AUGIS or ALSGBI.

The Registry will record details about patient selection, pre-operative investigations, intra-operative techniques, volumes of practice and, most importantly, outcomes. The Registry has patient reporting outcome measures (PROMs) integral within it. The Registry will automatically contact patients (with their consent-see GDPR policy) about their symptoms at 6 months, 1 year, 2 years, 3 years, 4 years and 5 years after their surgery. For anti-reflux procedures Registry, they will use pre-operative and post-operative GORD-QoL (see downloads page-<u>Downloads – National Hiatal Surgery Registry (nhsr.org)</u>) scores and need for continued anti-acid medication use as outcome measures. For cardiomyotomy surgery, comparison of pre-operative and post-operative Eckhardt scores (see downloads page-<u>Downloads – National Hiatal Surgery Registry (nhsr.org)</u>) are used, and for hiatus hernia repair pre-operative and post-operative Hiatus Hernia-QoL score (see downloads page-<u>Downloads – National Hiatal Surgery Registry (nhsr.org)</u>)).

Surgeons will be able to download a personal report based on the information they have entered for the purpose of their appraisal. A National Annual Report will also be delivered yearly at the AUGIS Annual Scientific Meeting. This report will not be at the surgeon level, but at the unit level. Volumes of activity, complication rates, and follow up outcomes will be reported.

Individual surgeon users will only be able to see their individual outcomes, which will be statistically referenced against the average of other surgeons anonymised outcomes for the same conditions. As an NHSR User you will not be able to see other surgeon's outcomes.

The information collected about both surgeons and patients is entirely confidential and will never be shared with any other organisation (see GDPR policy) without Users/their permission. The Registry is governed by AUGIS/BBUGSS and a committee of surgeons and run and maintained by an IT healthcare company bound by GDPR confidentiality law.

2. NHSR Committee:

The NHSR committee members are formally nominated and voted to post by the British Benign Upper Gastrointestinal Surgical Society (BBUGSS) council. The NHSR Committee is overseen by Association of Upper Gastrointestinal Surgeons (AUGIS) Executive Team.

The NHSR constitutes a 6-member Committee, which is as follows:

A. Chairperson

Current Post Holder: Mr. Sayan Bhattacharya, Consultant Surgeon Manchester

- B. Clinical Risk Management Lead Current Post Holder: Prof. Kamal Mahawar, Consultant Surgeon Sunderland
- **C. Data Protection Lead** Current Post Holder: Prof. YKS Viswanath, Consultant Surgeon South Tees
- D. Content Lead

Current Post Holder: Mr. Nagammapudur Balaji, Consultant Surgeon North Midlands

- E. Data Analysis Lead Current Post Holder: Mr. Scott McCain, Consultant Surgeon Belfast
- F. Procedure Classification Lead Current Post Holder: Mr. Guy Finch, Consultant Surgeon Northampton

The structure and function of the committee are as follows:

This consists of 6 voting members, including a chairperson (who carries a casting vote). The quorum comprises at least 3 voting members, including the chairperson (or deputy) and two other NHSR Committee members.

All NHSR committee members including the chair, are selected by application, addressed to the president of BBUGSS and voted in by a transparent process with a 3-year tenancy.

The NHSR Committee is responsible for:

a. Advising on the NHSR dataset, regarding its scope, structure, functionality, compatibility and confidentiality issues.

b. Liaising with the Database provider and other stakeholders.

c. Managing finance agreements and external sponsorship (if necessary) to run the database.

d. Generating and editing annual database reports. Such a report will be initially presented to AUGIS and BBUGSS councils before general release.

e. Address any governance or duty of candour issues that may arise from the NHSR database in conjunction with the Database Provider.

f. All disclosure of outcomes from the NHSR database to external organisations or public members will be through the NHSR Chair/AUGIS Executive Team and Database Provider.

NHSR Committee members are unable to access any individual NHSR User's data.

3. Procedure Definitions/Classifications

There is considerable variation in the description and classification of hiatal surgery throughout the published literature. For the NHSR to be consistent with what is reported by the Registry, Users of the NHSR are asked to follow a classification system described by the British Benign Upper GI Surgical Society <u>Home | British Benign Upper Gastro Intestinal Society (bbugss.com)</u> when entering data.

The Registry's classification system is detailed below.

Primary Anti-Reflux Surgery (Fundoplication)

Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX™)

Hybrid Anti-Reflux/Hiatus Hernia Repair

Primary Hiatus Hernia Repair

Primary Cardiomyotomy

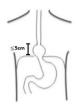
Revisional Anti-Reflux Surgery

Revisional Hiatus Hernia Repair

Revisional Cardiomyotomy

Primary Anti-Reflux Surgery (Fundoplication)

Definition: Elective, lifestyle, anti-reflux surgery with or without a synchronous hiatus hernia repair (type I/type II/type III hiatus hernia <1/3 of the stomach in the chest or \leq 5 cm migration of GOJ from hiatus) that are associated with small and medium size hiatal defects.



Primary indications for surgery:

Patients in whom the primary symptom is volume reflux/regurgitation.

A confirmed diagnosis of acid reflux and adequate symptom control with medical therapy but do not wish to continue with long-term therapy.

Patient with breakthrough symptoms despite maximum medical therapy.

A confirmed diagnosis of acid reflux and symptoms that respond to medical therapy but who are intolerant of medication side effects. Atypical symptoms such as aspiration, cough or hoarse voice and confirmed evidence of GORD (these patients as a group have less successful outcomes than patients with typical symptoms).

Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX)

Definition: Non-anatomical altering, life style anti-reflux surgery with or without synchronous hiatus hernia repair with the use of prosthetic implant.

Primary Hiatus Hernia Repair Surgery

Definition: Elective/Urgent/Emergency surgery to correct a primary symptom * +/associated secondary symptoms ** of a large hiatus hernia (>1/3 of stomach in the chest or GOJ >5 cm from hiatus, includes intra-thoracic stomach). These hernias are para-oesophageal and classified as type III and type IV (very rare type II). They are associated with medium and large hiatal defects. This classification of surgery does not include type I and II smaller hiatus hernias repaired as part of an anti-reflux procedure or large hiatus hernias repaired for a primary indication of reflux.

* Primary Symptom

Episode of emergency volvulus/post-prandial chest pain/shortness of breath/nausea and weight loss/dysphagia and weight loss /iron deficiency anaemia (other causes excluded)/major respiratory aspiration event.

** Secondary Symptom

Reflux/dyspepsia/post-prandial chest pain/shortness of breath/nausea/dysphagia/weight loss/iron deficiency anaemia (other causes excluded)/minor aspiration respiratory events.

Classification



Type III (Large)

Type III (Large)

Displacement of GOJ >5cm above diaphragmatic hiatus or >1/3 of stomach volume within chest on CT/contrast study.



Type III Intra-Thoracic Stomach

Type III Intra-Thoracic Stomach

Pylorus at, or above level of diaphragmatic hiatus, or if within the abdomen < 5cm distance from diaphragmatic hiatus.



Type IV

Type IV

Another organ above the level of the diaphragmatic hiatus, small/large bowel, pancreas, spleen (not inclusive of omentum).



Type II (Large)

Type II (Large)

>1/3 of stomach volume above level of the hiatus with the GOJ remaining at or below level of diaphragmatic hiatus (RARE).

Hybrid Anti-Reflux/Hiatus Hernia Surgery

Definition: Elective, life style primary intention anti-reflux surgery* +/- associated secondary symptoms ** in the presence of a synchronous large hiatus hernia (>1/3 of stomach in chest or GOJ >5 cm from hiatus, includes intra-thoracic stomach). These hernias are associated with medium and large hiatal defects. This classification of anti-reflux surgery is separate to primary anti-reflux procedures in the presence of smaller type I, II and III hiatus hernias, and does not fall into the same classification as primary hiatus hernia surgery.

* Primary Symptom

Reflux

Patients in whom the primary symptom is volume reflux/regurgitation.

A confirmed diagnosis of acid reflux and adequate symptom control with medical therapy but do not wish to continue with long term therapy.

Patient with breakthrough symptoms despite maximum medical therapy.

A confirmed diagnosis of acid reflux and symptoms that respond to medical therapy but who are intolerant of medication side effects.

Atypical symptoms such as aspiration, cough or hoarse voice and confirmed evidence of GORD (these patients as a group have less successful outcomes than patients with typical symptoms).

** Secondary Symptom

Post-prandial chest pain/shortness of breath/Nausea/Dysphagia/ weight loss/Iron deficiency anaemia.

Primary Cardiomyotomy Surgery

Elective surgery to correct symptoms of a diagnosis of Achalasia which may or may not have previously been treated with Botox or pneumatic dilation.

Hiatal Defects

Classification System

The defect is measured intra-operatively at the widest transverse point of the hiatus after oesophageal mobilisation.



Hiatal Defect Measurement

Hiatal Defect Measurements

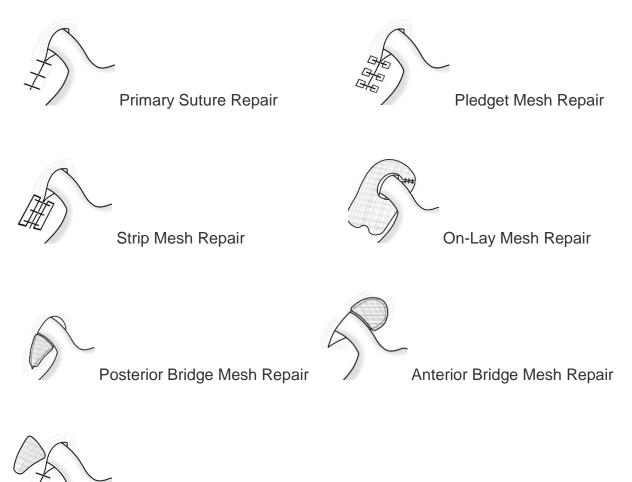
Type A (Small Hiatal Defect) < 3 cm

Type B (Medium Hiatal Defect) 3 - 6 cm

Type C (Large Hiatal Defect) > 6 – 9 cm

Type D (Giant Hiatal Defect) > 9 cm

Hiatal Defect Repair Classification



Diaphragm Relaxation Mesh

Fundoplication Types



Partial Anterior Fundoplication (Including 90°/120°/180°)

Partial Posterior Fundoplication (Including 180°/270°)



Revisional Anti-Reflux Surgery (BBUGSS Classification)

Definition: Elective revisional surgery to correct symptoms after previous fundoplication or LINX procedures (excludes acute complications of primary procedure).

Classification of previous Anti-Reflux surgery failure requiring revisional surgery

Type I: In-situ fundoplication disruption.

Type II: In-situ fundoplication slip.

Type III: Trans-hiatal fundoplication migration.

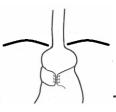
Type IV: Mixed fundoplication disruption and trans-hiatal fundoplication migration.

Type V: Trans-hiatal fundoplication slip.

Type VI: LINX failure (migration/erosion/persistent dysphagia/poor symptom control).



Type I In-Situ Fundoplication Disruption



Type II In-Situ Fundoplication Slip

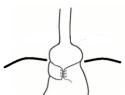


Type III Trans-Hiatal Fundoplication Herniation



Type IV Mixed Fundoplication Disruption and Trans-Hiatal Wrap

Herniation



Type V Fundoplication Slip Herniation



Type VI LINX Failure

Indications for surgery

Troublesome persistent dysphagia following previous anti-reflux/LINX surgery (resistant to non-surgical therapy).

Patients in whom the primary symptom is volume reflux/regurgitation despite previous anti-reflux/LINX surgery.

A confirmed diagnosis of recurrent acid reflux after previous anti-reflux/LINX surgery and adequate symptom control with medical therapy but do not wish to continue with long term therapy.

Patient with breakthrough symptoms despite maximum medical therapy for recurrent reflux after previous anti-reflux/LINX surgery.

A confirmed diagnosis of acid reflux in patients following previous anti-reflux surgery/LINX and symptoms that respond to medical therapy but who are intolerant of medication side effects.

Atypical symptoms such as aspiration, cough or hoarse voice and confirmed evidence of GORD in patients treated previously with anti-reflux/LINX surgery (these patients as a group have less successful outcomes than patients with typical symptoms).

LINX explant for erosion/migration.

LINX explant for psychological reasons.

Revisional Hiatus Hernia Surgery

Definition: Elective/Urgent/Emergency *revisional surgery* to correct a recurrent primary symptom * +/- associated secondary symptoms ** with evidence of a recurrent hiatus hernia (>1/3 of stomach in chest or GOJ >5 cm from hiatus), excludes acute complications of primary procedure.

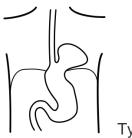
* Primary Symptom

Episode of emergency volvulus/post-prandial chest pain/shortness of breath/nausea and weight loss/dysphagia and weight loss /iron deficiency anaemia (other causes excluded)/major respiratory aspiration event.

** Secondary Symptom

Reflux/dyspepsia/post-prandial chest pain/shortness of breath/nausea/dysphagia/weight loss/iron deficiency anaemia (other causes excluded)/minor aspiration respiratory events.

Classification of Recurrence



Type III (Large)

Recurrent Type III (Large)

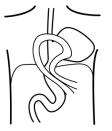
Displacement of GOJ >5cm above diaphragmatic hiatus or >1/3 of stomach volume within chest on CT/contrast study.



Type III Intra-Thoracic Stomach

Recurrent Type III Intra-Thoracic Stomach

Pylorus at, or above level of diaphragmatic hiatus, or if within the abdomen < 5cm distance from diaphragmatic hiatus.

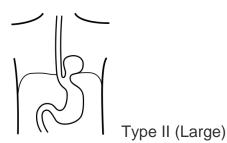


Type IV

NHSR 2023 National Hiatal Surgery Registry Report

Recurrent Type IV

Another organ above the level of the diaphragmatic hiatus, small/large bowel, pancreas, spleen (not inclusive of omentum).



Recurrent Type II (Large)

>1/3 of stomach volume above level of the hiatus with the GOJ remaining at or below level of diaphragmatic hiatus (RARE).

Revisional Cardiomyotomy Surgery

Elective revisional surgery to correct symptoms of a diagnosis of recurrent Achalasia after previous treatment- includes previous cardiomyotomy surgery or POEM, *not Botox and pneumatic dilatation* (excludes acute complications of the primary procedure).

4. Outcome Measures Recorded for NHSR

The Registry will record User entered details about patient selection, pre-operative investigations, intra-operative techniques, volumes of practice.

This includes:

Age (at time of surgery)	DeMeester Score
BMI	Radiological Investigation
ASA	Procedure type
Care Type NHS/Private	Method Open/Lap/Robotic/Converted
Centre of Practice	Day Case/ Inpatient
Symptom Presentation	Hiatal Defect Size
Pre-Procedure QoL Score	Fundoplication type/LINX Size
Use of Anti Acid Medication	Gastroplasty Required
Oesophagitis/Barretts Present	Morbidity
pH/Manometry	Mortality
Length of Stay	90-day Readmission

The Registry has patient reporting outcome measures (PROMs) integral within it. The Registry will automatically contact patients (with their consent-see GDPR policy) with regard to their symptoms at 6 months, 1 year, 2 years, 3 years, 4 years and 5 years after their surgery.

For Anti-Reflux and Hybrid Anti-Reflux/Hiatus Hernia Surgery procedures the Registry will use GORD-QoL scores (see downloads page-<u>Downloads – National Hiatal Surgery</u> <u>Registry (nhsr.org)</u> and need for continued anti-acid medication use as outcome measures.

For Cardiomyotomy Surgery, comparison of pre-operative and post-operative Eckhardt scores (see downloads page <u>Downloads – National Hiatal Surgery Registry (nhsr.org</u>)) are used.

For Hiatus Hernia Repair pre-operative and post-operative Hiatus Hernia-QoL score (see downloads page <u>Downloads – National Hiatal Surgery Registry (nhsr.org</u>)).

5. Data Collection, Storage, and Security and Confidentiality

Data Governance is an important part of this national level project. It is vitally important that data is safe and compliant with all data protection laws and governing bodies. The data safety of patients and NHSR Users is critical and deliberately kept to a minimum but still allow functionality for its purpose.

No User (including Committee Member) can access another User's data, all activity and access events within the databased is logged and audited.

The Registry's service is under the control of AUGIS Executive Council/BBUGSS and governed by the NHSR Committee. The NHSR and its webpages are operated on behalf of AUGIS/BBUGSS by Riviera Surgery LLP, a IT Healthcare Company registered in England and Wales. Riviera Surgery LLP registered office is: Westbury Hill, Bristol, Avon, BS9 3QA. The company registration number is OC429838. Riviera Surgery LLP is a registered Data Controller with the Information Commissioner's Office (ICO) under registration number ZA645133. This means that Riviera Surgery LLP is responsible for, and control the processing of any potentially identifiable information we collect about patients and users.

Any data loss/hack/corrupted/unauthorised access is reportable to ICO/CQC for which the NHSR management company is responsible.

Details of Riviera Surgery LLP notification to the regulator for data protection, may be found in the ICO's Public Register of Data Controllers at www.ico.org.uk. Riviera Surgery LLP is registered and data safety regulated by Care Quality Commission (CQC), (CQC CRT-9418357166), Riviera Surgery LLP is registered with NHS Digital and compliant with Data Security and Protection (NHS Digital- C9G2R).

Data entered into the NHSR is identified legally as a limited healthcare record, users of the NHSR are required to comply with the Terms and Conditions Policy <u>Terms &</u> <u>Conditions – National Hiatal Surgery Registry (nhsr.org)</u>.

The data entered is completely confidential at the individual surgeon level, no other person/organisation has access now or in the future to the data you enter without User permission unless required to by law. Outcome data will be available in the public domain at the Hospital Trust/Private Healthcare Organisation level.

6. Current Engagement with NHSR

Registration with NHSR is currently with 70 NHS trusts or Private Organisations within the UK



NHS Trusts and Private Healthcare Organization's Registered with NHSR



Q NHS Centres of Practice Registered with NHSR

Q Private Centres of Practice Registered with NHSR

All NHS/Private Healthcare Organisations Currently Registered with

NHSR- (centres that have entered at least one patient are in bold)

Trust/Organisation Name	Consu Total	ultants Active	Active	Patients Complete	
All Trusts/Organisations	121	34	166	375	541
Aneurin Bevan University Health Board	4	3	13	16	29
Aspen Healthcare	4	0	0	0	0
BMI Healthcare	14	1	2	10	12
Barking, Havering and Redbridge University Hospitals NHS Trust	2	0	0	0	0
Bedfordshire Hospitals NHS Foundation Trust	1	0	0	0	0
Belfast Health and Social Care Trust	1	0	0	0	0
Betsi Cadwaladr University Health Board	1	0	0	0	0
Burcot Hall Bromsgrove	1	0	0	0	0
Calderdale and Huddersfield NHS Foundation Trust	1	0	0	0	0
Cambridge University Hospitals NHS Foundation Trust	2	0	0	0	0
Chelsea and Westminster Hospital NHS Foundation Trust	1	0	0	0	0
Chesterfield Royal Hospital NHS Foundation Trust	3	0	0	0	0
County Durham and Darlington NHS Foundation Trust	1	0	0	0	0
Croydon Health Services NHS Trust	1	1	9	30	39
Dartford and Gravesham NHS Trust	1	0	0	0	0
ERROR_COP100 [get_var title 884 OBJECT]	1	0	0	0	0
Epsom and St. Helier University Hospitals NHS Trust	2	1	9	21	30
Fife NHS	1	0	0	0	0
Forth Valley NHS	2	0	0	0	0
Frimley Health NHS Foundation Trust	4	1	2	6	8
Gateshead Health NHS Foundation Trust	1	0	0	0	0
Gloucestershire Hospitals NHS Foundation Trust	3	1	5	18	23
Guy's and St. Thomas' NHS Foundation Trust	2	0	0	0	0
Hampshire Hospitals NHS Foundation Trust	2	0	0	0	0
Hull University Teaching Hospitals NHS Trust	1	0	0	0	0
Kettering General Hospital NHS Foundation Trust	1	0	0	0	0
King's College Hospital NHS Foundation Trust	1	0	0	0	0
Kingsbridge Private Hospital Belfast	3	0	0	0	0
Lancashire Teaching Hospitals NHS Foundation Trust	2	0	0	0	0
Leeds Teaching Hospitals NHS Trust	3	2	1	9	10
Lewisham and Greenwich NHS Trust	2	0	0	0	0
London Bridge Hospital	2	0	0	0	0
Manchester University NHS Foundation Trust	3	1	3	23	26
Mid Yorkshire Hospitals NHS Trust	1	0	0	0	0
Mid and South Essex NHS Foundation Trust	1	0	0	0	0
New Victoria Hospital	1	0	0	0	0
North Bristol NHS Trust	1	0	0	0	0
North Cumbria Integrated University Hospitals NHS Trust	1	0	0	0	0
Northamptonshire Healthcare NHS Foundation Trust	3	2	28	40	68

Northern Devon Healthcare NHS Trust	1	0	0	0	0
Northern Lincolnshire and Goole NHS Foundation Trust	1	0	0	0	0
Northumbria Healthcare NHS Foundation Trust	1	0	0	0	0
Nottingham University Hospitals NHS Trust	1	0	0	0	0
Nuffield Health	13	1	2	11	13
Oxford University Hospitals NHS Foundation Trust	1	0	0	0	0
Portsmouth Hospitals NHS Trust	4	1	0	1	1
Ramsay Health Care UK	11	1	0	4	4
Royal Berkshire NHS Foundation Trust	1	1	1	0	1
Royal Cornwall Hospitals NHS Trust	3	1	1	0	1
Royal United Hospitals Bath NHS Foundation Trust	1	1	2	6	8
Sandwell and West Birmingham Hospitals NHS Trust	2	2	5	1	6
Sheffield Teaching Hospitals NHS Foundation Trust	1	1	1	0	1
South Eastern Health and Social Care Trust	2	0	0	0	0
South Tees Hospitals NHS Foundation Trust	1	1	6	50	56
South Tyneside and Sunderland NHS Foundation Trust	1	0	0	0	0
South Warwickshire NHS Foundation Trust	2	0	0	0	0
Southern Health and Social Care Trust	1	1	11	24	35
Spire Healthcare Group	16	1	1	0	1
St. George's University Hospitals NHS Foundation Trust	2	1	1	1	2
St. Josephs Hospital, Newport	1	1	1	0	1
Taunton and Somerset NHS Foundation Trust	1	0	0	0	0
The Dudley Group NHS Foundation Trust	1	1	15	3	18
The Princess Alexandra Hospital NHS Trust	1	0	0	0	0
The Rotherham NHS Foundation Trust	1	0	0	0	0
Torbay and South Devon NHS Foundation Trust	6	6	18	45	63
Ulster Independent Clinic	3	0	0	0	0
University Hospital Southampton NHS Foundation Trust	2	1	3	17	20
University Hospital of Derby and Burton NHS Foundation Trust	1	0	0	0	0
University Hospitals Bristol and Weston NHS Foundation Trust	1	0	0	0	0
University Hospitals Coventry and Warwickshire NHS Trust	4	1	6	11	17
University Hospitals Plymouth NHS Trust	1	0	0	0	0
University Hospitals Sussex NHS Foundation Trust	2	1	8	1	9
University Hospitals of Leicester NHS Trust	1	0	0	0	0
University Hospitals of North Midlands NHS Trust	2	1	3	3	6
Warrington and Halton Hospitals NHS Foundation Trust	2	0	0	0	0
West Hertfordshire Hospitals NHS Trust	2	0	0	0	0
West Suffolk NHS Foundation Trust	2	2	9	24	33
Western Health and Social Care Trust	1	0	0	0	0
Worcestershire Acute Hospitals NHS Trust	1	0	0	0	0
Yeovil District Hospital NHS Foundation Trust	1	0	0	0	0
York Teaching Hospital NHS Foundation Trust	6	0	0	0	0

7. Outcome Reporting

NHSR Statistical Analysis Methodology

NHSR uses Standard Error (SE) to compare statistical significance between PROMs outcomes within the subsets of procedures.

+/-2 SEs are taken as significant with 95% confidence.

Worked Example of a Significance Test

NHSR uses t-test statistical analysis test using the mean of a sample of data, \bar{x} , to determine whether population mean, μ , is zero. This tests the null hypothesis H0: $\mu = 0$ with the alternative hypothesis HA: $\mu \neq 0$. NHSR uses a t-test when the standard deviation is estimated from the sample data and this is particularly important when the sample size is small (n < 30).

There are a number of steps in the calculation of the t-test to compare scores. This is illustrated with a worked example for testing a change at 1-year post-surgery compared to pre-surgery for Primary Anti-Reflux (Fundoplication patients).

The data includes all primary anti-reflux fundoplication patients and who have scores at both pre-surgery and 1-year post-surgery timepoints. These are shown in Table 1 below.

i	Patient ID	QoL pre- surgery	QoL 1 year post- surgery
1	Patient 87	20	2
2	Patient 91	30	2
3	Patient 76	34	2
4	Patient 158	15	7
5	Patient 181	29	1
6	Patient 185	27	9
48	Patient 455	35	0
49	Patient 514	36	4

Note: While results are presented to 1 decimal place in this example, unrounded values are used throughout the calculations.

Table. 1

1. Calculate the change in score for each patient

For each patient, *i*, calculate the change in quality of life score: Table 2

change = xi = year 1 scorei - presurgery scorei

i	Patient ID	QoL pre- surgery	QoL 1 year post- surgery	Change (xi)
1	Patient 87	20	2	-18
2	Patient 91	30	2	-28
3	Patient 76	34	2	-32
4	Patient 158	15	7	-8
5	Patient 181	29	1	-28
6	Patient 185	27	9	-18
48	Patient 455	35	0	-35
49	Patient 514	36	4	-32

Table 2.

3. Calculate the mean change

Calculate the sample mean, \overline{x} .

mean(change) = $\overline{x} = \frac{\sum in = 1xi}{n}$ mean(change) = $\overline{x} = \frac{(-18 + -28 + -32 + -8 + -28 + -18 + \dots + -35 + -32)}{49}$ = -22.16327

4. Calculate the standard deviation of the change

Calculate the sample standard deviation, s.d.

s.d.(change) = $\sqrt{\underline{\Sigma}2ni = (xi - \overline{x})}$ n - 1

s.d.(change) = $\sqrt{(-18-22.2)^2+(-28-22.2)^2+(-32-22.2)^2 + \cdots +(-35-22.2)^2 + (-32-22.2)^2}$

49 - 1

s.d.(change) =
$$\sqrt{4.22+(-5.8)2+(-9.8)2 + 14.22+(-5.8)2 + \dots +(-12.8)2 + (-9.8)2}$$

$$= \sqrt{(17.3 + 34.1 + 96.8 + 200.6 + 34.1 + \dots + 164.8 + 96.8)}$$

$$= 10.14755$$

5. Calculate the 95% confidence interval for the mean change

The 95% confidence interval is calculated using the mean and standard deviation from the previous two steps and the critical value of the t-distribution.

The critical value for the t-distribution depends on the sample size, *n*. Critical values for a number of sample sizes, *n*, are given Table 3 below.

n	df = (n-1)	t(critical)
2	1	12.706205
3	2	4.302653
4	3	3.182446
5	4	2.776445
10	9	2.262157
15	14	2.144787
20	19	2.093024
30	29	2.045230
49	48	2.010635

Table 3

The 95% confidence interval is given by:

95% CI = $\overline{x} \pm t(critical) \times \frac{s.d.}{\sqrt{n}}$

 $= -22.2 \pm 2.01 \times \frac{10.1}{\sqrt{49}}$

= (-25.1, -19.2)

6. Interpretation

The outcome of is a 95% confidence interval for the population mean. The confidence interval is the interval we are confident that the true means lies and is the basis for testing the hypothesis that the mean is zero.

If the 95% confidence interval is wholly below zero (i.e., the value of zero does not fall within the confidence interval) we can be confident that the change in quality of life is different from zero. This suggests that the null hypothesis is false, and the result is said to be statistically significantly different from zero.

If the 95% confidence interval includes the value of zero then there is either no change in the quality of life, or there isn't sufficient data to detect a difference.

The above is applied other subsets of the data, for example, for comparing the change in quality of life score pre and 2-year post surgery or for individual procedures.

Comments and Conclusions

Analysis of the quality of life measures shows that at 1 year post-surgery there is a decrease in quality of life scores (representing an improvement) compared to presurgery. While there is no further improvement at 2 years post-surgery, the reduction in the quality of life score is maintained.

Reports

Primary Anti-Reflux Surgery (Fundoplication) - All UK Trusts/Private Health Care Organisations

220 registered patients, 88 active, 132 complete from 22 NHS Trusts/Independent HealthCare Organisations

Trust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL	6 mor	th QoL vement	1 yea	ar QoL vement	2 yea	r QoL rement	3 yea Improv	r QoL rement	4 year Improve	QoL ement	5 year Improv	r Qoi
				(Mean Ave.)	Score	÷/-	Score	+/-	Score	+/-	Score	+/-	Score	+/-	Score	+/-
Overall Trusts/Organisations	132	6 4.55%	-	29.3	4.5	84.6%	5.8	80.2%	5.0	82.9%	-	-	-	-	-	-
Aneurin Bevan University Health Board [4]	3	-	-	19.7	6.3	68.0%	-	-	-	-	-	-	-	-	-	-
Aspen Healthcare [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barking, Havering and Redbridge University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bedfordshire Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belfast Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Betsi Cadwaladr University Health Board [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3MI Healthcare [14]	7	-	-	24.6	7.9	67.9%	7.8	68.3%	-	-	-	-	-	-	-	-
Burcot Hall Bromsgrove [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calderdale and Huddersfield NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chelsea and Westminster Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chesterfield Royal Hospital NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
County Durham and Darlington NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croydon Health Services NHS Trust [1]	17	-	-	25.8	4.3	83.3%	3.3	87.2%	-	-	-	-	-	-	-	-
Dartford and Gravesham NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epsom and St. Helier University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fife NHS [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Forth Valley NHS [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
rimley Health NHS Foundation Trust [4]	3	-	-	23.3	2.3	90.1%	-	-	-	-	-	-	-	-	-	-
Sateshead Health NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sloucestershire Hospitals NHS Foundation Trust [3]	7	-	-	28.6	1.6	94.4%	6.6	76.9%	-	-	-	-	-	-	-	-
Suy's and St. Thomas' NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	_	-	-	-	_	-	-	_
- Hampshire Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
Hull University Teaching Hospitals NHS Trust [1]	_	-	-	_	_	_	_	_	_	_	_	_	_	_	-	_
Kettering General Hospital NHS Foundation Trust [1]	-	-	-	-	_	_	_	-	_	-	-	_	-	_	-	-
King's College Hospital NHS Foundation Trust [1]	_	_	-	_	-	-	-	-	_	-	-	-	-	-	-	_
(ingsbridge Private Hospital Belfast [3]	-			-	-	_	-	-	_	-	-	-	-	_		-
ancashire Teaching Hospitals NHS Foundation Trust [2]	_	-		-	-	-	_	-	-	-	-	-	_	-	-	-
	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
eeds Teaching Hospitals NHS Trust [3]	3	1 33.33%		32.0	9.3	70.9%	5.0	84.4%	-	-	-	-	-	-	-	-
ewisham and Greenwich NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
.ondon Bridge Hospital [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanchester University NHS Foundation Trust [3]	10	-	-	42.9	5.3	87.6%	10.8	74.8%	-	-	-	-	-	-	-	-
vlid and South Essex NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vid Yorkshire Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Victoria Hospital [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Bristol NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Cumbria Integrated University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northamptonshire Healthcare NHS Foundation Trust [3]	12	1 8.33%	-	33.2	5.7	82.8%	4.0	88.0%	-	-	-	-	-	-	-	-
Northern Devon Healthcare NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Lincolnshire and Goole NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northumbria Healthcare NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nottingham University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuffield Health [13]	8	2 25.00%	-	26.4	3.8	85.6%	12.0	54.5%	-	-	-	-	-	-	-	-
0xford University Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portsmouth Hospitals NHS Trust [4]																

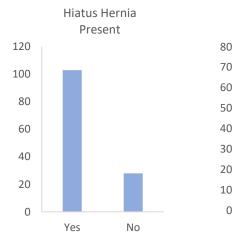
Royal Berkshire NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royal Cornwall Hospitals NHS Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royal United Hospitals Bath NHS Foundation Trust [1]	4	-	-	25.8	1.0	96.1%	3.3	87.2%	-	-	-	-	-	-	-	-
Sandwell and West Birmingham Hospitals NHS Trust [2]	1	-	-	19.0	2.0	89.5%	4.0	78.9%	-	-	-	-	-	-	-	-
Sheffield Teaching Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Eastern Health and Social Care Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Tees Hospitals NHS Foundation Trust [1]	9	-	-	30.9	4.4	85.8%	4.8	84.5%	-	-	-	-	-	-	-	-
South Tyneside and Sunderland NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Warwickshire NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southern Health and Social Care Trust [1]	2	-	-	43.0	-	-	3.0	93.0%	-	-	-	-	-	-	-	-
Spire Healthcare Group [16]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. George's University Hospitals NHS Foundation Trust [2]	1	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-
St. Josephs Hospital, Newport [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taunton and Somerset NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Dudley Group NHS Foundation Trust [1]	3	-	-	19.0	1.3	93.2%	0.7	96.3%	-	-	-	-	-	-	-	-
The Princess Alexandra Hospital NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Rotherham NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	13	1 7.60%	-	30.8	3.7	88.0%	4.0	87.0%	5.0	83.8%	-	-	-	-	-	-
Ulster Independent Clinic [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital of Derby and Burton NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	5	-	-	32.4	5.2	84.0%	-	-	-	-	-	-	-	-	-	-
University Hospitals Bristol and Weston NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	4	-	-	25.5	12.8	49.8%	13.3	47.8%	-	-	-	-	-	-	-	-
University Hospitals of Leicester NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	1	-	-	15.0	4.0	73.3%	10.0	33.3%	-	-	-	-	-	-	-	-
University Hospitals Plymouth NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Sussex NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warrington and Halton Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Hertfordshire Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	15	-	-	25.5	2.8	89.0%	4.4	82.7%	-	-	-	-	-	-	-	-
Western Health and Social Care Trust [1]	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-
Worcestershire Acute Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yeovil District Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Teaching Hospital NHS Foundation Trust [6]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174 serves for a disc Deleners Anti Defler Susans (Eurola-Berten)																
174 trusts found for Primary Anti-Reflux Surgery (Fundoplication) sorted by	name (aiph	abetically ascer	naing).													

* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

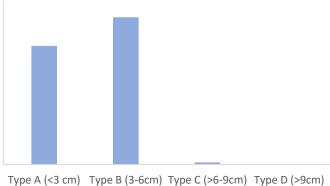
Primary Anti-Reflux Surgery (Fundoplication)- All Centres Data

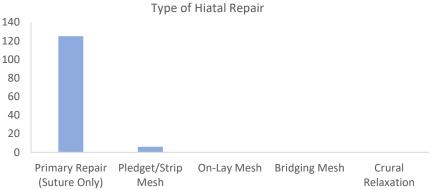
*To appear in statistical analysis the patient must have a complete or in PROM status





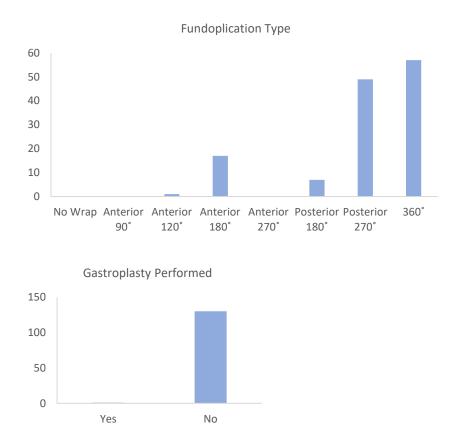






Relaxation

NHSR 2023 National Hiatal Surgery Registry Report



Combined UK GERD-QoL Score PROMs- Primary Anti-Reflux Surgery (Fundoplication) All NHS Trusts & Independent HealthCare





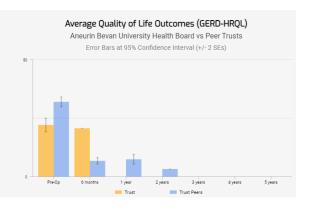
Prima	ary Anti-Re	əflu	x Surc	iery (F	un	doplicat	ion)				
Total	,					132	/				
Sex											
Male/Female/Other	6	63 69 -							-		
Age											
Median	52										
Range					2(0-79					
Episodes											
Day Case					34	(26%)					
Inpatient						(74%)					
Time on Waiting List (Days)						. ,					
Median					1	170					
Range					9-:	1019					
Method											
Open						-					
Laparoscopic					125	(95%)					
Robotic						(5%)					
Converted						-					
Hiatus Hernia Present		Ye	S				N	0			
	1	104 (79%)					28 (2	21%)			
Hiatal Defect	Type A (<3 o	<u> </u>	-	3 (3-6cm)	Type C (>6	· ·	-	e D (>9cm)		
	58			73		1	•		-		
Hiatal Repair	Primary		Pledget/	'Strip		On-Lay	Bric	lging	Crural		
	Suture		Mes	-		Mesh		esh	Relaxation		
	126		6			-		-	-		
Fundoplication Type	Anterior	Ar	nterior	Anter	ior	Posterio	r Po	osterior	360°		
	Partial 90°	Р	artial	Parti	al	Partial	F	Partial	Complete		
			120°	180	0	180°		270°			
	-		1	18		7		49	57		
Gastroplasty			Yes					No			
			1					131			
Length of Stay (Days)											
Median						1					
Range					0	-80					
Complications											
Morbidity (Overall)					6 (4	4.5%)					
Return to Theatre						2					
Readmission (90 Days)					9 (6.8%)					
Mortality						0					
QoL Outcomes											
	N		ean (x̄)	Ranç	_	SD		SE	95% CI		
Pre-Procedure QoL	132		29.3	5-50		9.8		0.9	27.6-31.0		
6 Month QoL	77		5.5	1-32		5.6		0.6	4.2-6.8		
1 Year QoL	43 6.3 1-27 5.4 0.8				4.7-7.9						
2 Year QoL	1		5.0	5-5		-		-	-		
3 Year QoL	-		-	-		-		-	-		
4 Year QoL	-		-	-		-		-	-		
5 Year QoL	-		-	-		-		-	-		

Primary Anti-Reflux Surgery (Fundoplication)

Patient Reported Outcome Measures (PROMs) NHS Trusts- (Trust vs Peer Trusts) Included- NHSR registered NHS Trusts who have entered at least 1 patient into any NHSR reporting catorgery Excluded- NHSR registered NHS Trusts that have not entered any patients into any catorgery *To appear in statistical analysis the patient must have a complete status or in PROM status

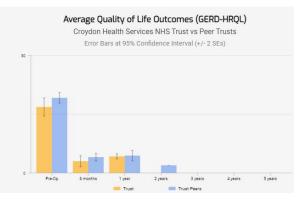
*Outcome data may or may not be representative of all activity in a specific Trust/Organisation

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	3/109	20.3	29.4	-31.0 % 🖡
6 months:	1/66	19.0	6.2	206.5%
1 year:	-/36	-	6.8	-100 % 👃
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕖		6.4%	89.8%	-92.9%
PROM Ratio: 🔞		100.0%	100.0%	0.0%



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	17/95	25.8	29.4	-12.2 % 🖡
6 months:	11/56	4.6	6.2	-25.8 % 🖡
1 year:	2/34	6.5	6.8	-4.4 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	\overline{a}
4 years:	-/-	-	-	77.00
5 years:	-/-	-	-	-
Improvement: 🞯		74.8%	89.8%	-16.7 % 🖡
PROM Ratio: 🔞		100.0 %	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/112	-	29.4	-100 % 👃
6 months:	-/67	-	6.2	-100 % 👃
1 year:	-/36	-	6.8	-100 % 👃
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	89.8%	-100 % 🖡
PROM Ratio: 🕜		-	100.0 %	-100 % 🖡

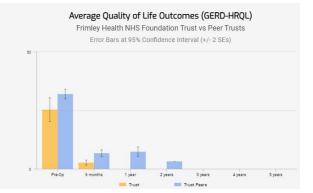


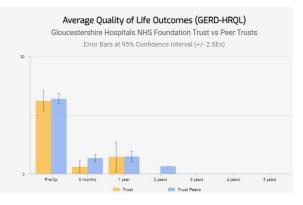


QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	3/109	23.3	29.4	-20.7 % 🖡
6 months:	2/65	2.5	6.2	-59.7 % 🖡
1 year:	-/36	-	6.8	-100 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		89.3%	89.8%	-0.6 % 🖡
PROM Ratio: 10		100.0%	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	7/105	28.6	29.4	-2.7 % 🖡
6 months:	4/63	2.8	6.2	-54.8 % 🖡
1 year:	5/31	6.6	6.8	-2.9 % 🖡
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	70
5 years:	-/-	-	-	-
Improvement: 🞯		76.9%	89.8%	-14.4 % 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

QoL Average Scores PROM Qty Trust Peers Difference v Peers 3/109 32.0 29.4 8.8% **†** Pre-Op: 6 months: 3/64 9.3 6.2 50.0 % **†** 3/33 5.0 6.8 -26.5 % 🖡 1 year: 2 years: -/1 -3.0 -100 % 👃 3 years: -/-_ -_ 4 years: -/----5 years: -/-_ _ _ Improvement: 🕑 84.4% 89.8% -6.0 % 🖡 PROM Ratio: 😡 100.0% 100.0% 0.0%







42.9		
	29.4	45.9 % 🕇
4.7	6.2	-24.2 %
11.0	6.8	61.8 % 🕇
-	3.0	-100 % 🖡
-	-	-
-	-	-
-	-	-
74.4%	89.8%	-17.1 %
0.00%	100.0%	0.0%

Average Quality of Life Outcomes (GERD-HRQL) Manchester University NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

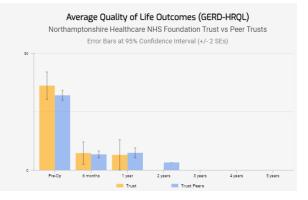


QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	12/100	33.2	29.4	12.9%
6 months:	6/61	6.7	6.2	8.1% 🕇
1 year:	2/34	6.0	6.8	-11.8 % 👃
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🚱		81.9 %	89.8%	-8.8 % 🖡
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%

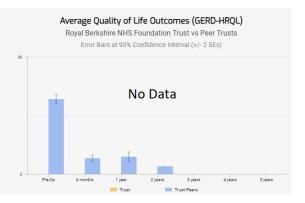
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/111	37.0	29.4	25.9%
6 months:	1/66	9.0	6.2	45.2 %
1 year:	-/36	-	6.8	-100 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		75.7%	89.8%	-15.7 % 🖡
PROM Ratio: 🔞		100.0%	100.0 %	0.0%

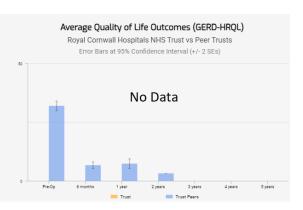
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/112	-	29.4	-100 % 👃
6 months:	-/67	-	6.2	-100 % 👃
1 year:	-/36	-	6.8	-100 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🚱		-	89.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/112	-	29.4	-100 % 👃
6 months:	-/67	-	6.2	-100 % 🖡
1 year:	-/36	-	6.8	-100 % 👃
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	89.8%	-100 % 🖡
PROM Ratio: 🕖		-	100.0%	-100 % 🖡









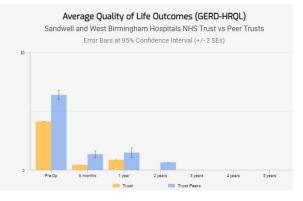
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/108	25.8	29.4	-12.2 % 🖡
6 months:	2/65	1.0	6.2	-83.9 % 🖡
1 year:	3/33	4.3	6.8	-36.8 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🛛		83.3%	89.8%	-7.2 %
PROM Ratio: 10		100.0%	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/111	19.0	29.4	-35.4 % 👃
6 months:	1/66	2.0	6.2	-67.7 % 🖡
1 year:	1/35	4.0	6.8	-41.2 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	_
4 years:	-/-	-	-	_
5 years:	-/-	-	-	-
Improvement: 🞯		78.9%	89.8%	-12.1 % 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/112	-	29.4	-100 % 👃
6 months:	-/67	-	6.2	-100 % 👃
1 year:	-/36	-	6.8	-100 % 👃
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🚱		-	89.8%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 🖡

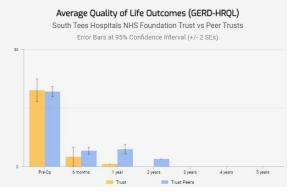
		verage Qu United Hosp Error Ba	itals Bath		ation Trust	vs Peer Tru	sts
50	I						
0	Pre-Op	6 months	1 year	2 years	3 years	4 years	5 years

💻 Trust 📃 Trust Peers





QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	8/104	29.9	29.4	1.7 % 🕇
б months:	4/63	3.8	6.2	-38.7 % 🖡
1 year:	1/35	1.0	6.8	-85.3 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	1	-	-
5 years:	-/-	-	0.77	-
Improvement: 🚱		96.7%	89.8%	7.7 % †
PROM Ratio: 🔞		100.0%	100.0%	0.0%



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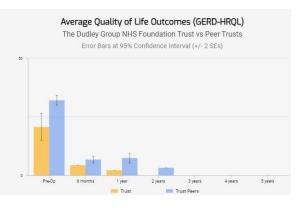
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/110	43.0	29.4	46.3%
6 months:	-/67	-	6.2	-100 % 🖡
1 year:	-/36	-	6.8	-100 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	89.8%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 👃

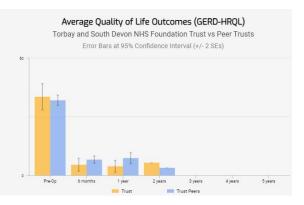
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/111	25.0	29.4	-15.0 % 🖡
6 months:	-/67	-	6.2	-100 % 🖡
1 year:	-/36	-	6.8	-100 % 🖡
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	89.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

Peers (Ave.) QoL Average Scores Difference v Peers PROM Qty Trust Pre-Op: 3/109 19.0 29.4 -35.4 % 4.0 6 months: 1/66 6.2 -35.5 % 🖡 1/35 2.0 6.8 -70.6 % 1 year: 3.0 -100 % 👃 -2 years: -/1 _ --/--3 years: -/---_ 4 years: _ -_ 5 years: -/-Improvement: @ 89.5% 89.8% -0.3 = 1 PROM Ratio: 🔞 100.0% 100.0% 0.0%

		erage Qua outhern Hea Error Bars		cial Care Tr	ust vs Pee	er Trusts	
50	I						
		I	I				
0	Pre-Op	6 months	1 year	2 years	3 years	4 years	5 years







QoL Average Scores PROM Qty Trust Peers Difference v Peers Pre-Op: 13/99 30.8 29.4 4.8 1 6 months: 10/57 4.2 6.2 -32.3 % 1 year: 5/31 3.6 6.8 -47.1 1 2 years: 1/-5.0 3.0 66.7 % 1 3 years: -/-_ _ 4 years: -/-5 years: -/-_ Improvement: 🙆 83.8% 89.8% -6.7 🖘 🖡 PROM Ratio: 🔞 100.0% 100.0% 0.0%

NHSR 2023 National Hiatal Surgery Registry Report

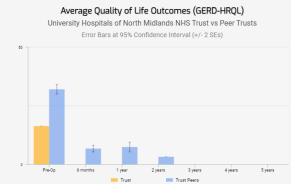
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/108	33.8	29.4	15.0 % †
6 months:	3/64	3.3	6.2	-46.8 % 🖡
1 year:	-/36	-	6.8	-100 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		90.2%	89.8%	0.4 % 🕇
PROM Ratio: 10		100.0%	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/108	25.5	29.4	-13.3 % 🖡
6 months:	4/63	12.8	6.2	106.5 % 🕇
1 year:	4/32	13.3	6.8	95.6 % †
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🛛		47.8%	89.8%	-46.8 🛸 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

QoL Average Scores Trust (Ave.) Difference v Peers PROM Qty Peers (Ave.) Pre-Op: 1/111 15.0 29.4 -49.0 % 👃 6 months: -/67 _ 6.2 -100 % 👃 6.8 -100 % 👃 1 year: -/36 _ 3.0 -100 % 👃 2 years: -/1 _ _ 3 years: _ _ -/-4 years: _ _ -/-_ _ _ 5 years: _ -/-Improvement: 🔞 0.0% 89.8% -100 % 👃 PROM Ratio: 🔞 100.0 % -100 % 👃

•	T	Error Ba	irs at 95% Co	onfidence Inti	erval (+/- 2 \$	SES)	
	1						

Average Quality of Life Outcomes (GERD-HRQL) University Hospitals Coventry and Warwickshire NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs) 3 years 4 years 5 years



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/112	-	29.4	-100 % 👃
6 months:	-/67	-	6.2	-100 % 🖡
1 year:	-/36	-	6.8	-100 % 👃
2 years:	-/1	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞			00.0	-100 %
Improvement.		-	89.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0%	-100 % 👃



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	15/97	25.5	29.4	-13.3 % 🖡
6 months:	7/60	4.7	6.2	-24.2 %
1 year:	7/29	4.4	6.8	-35.3 % 🖡
2 years:	-/1	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🛛		82.7%	89.8%	-7.9 🛯 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

NHSR 2023 National Hiatal Surgery Registry Report

Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX™) - All UK Trusts/Private Health Care Organisations

57 registered patients, 26 active, 31 complete, from 4 NHS Trusts/Independent HealthCare Organisations

					6 mor	th Ool	6 month QoL 1 year		L 1 year QoL		QoL 2 year		3 year	r Ool	L 4 year QoL		5 year Qol	
rust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)	Impro	vement +/-	Impro Score	rement +/-	Improv Score	rement +/-	Improv Score	rement +/-	Improv Score	vement +/-	Improve Score	/em		
Verall Trusts/Organisations	31	2 6.45%	-	28.0	5.7	79.6%	5.9	78.9%	-	-	-	-	-	-	-			
neurin Bevan University Health Board [4]	6	-	-	21.8	-	-	-	-	-	-	-	-	-	-	-			
ispen Healthcare [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
larking, Havering and Redbridge University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
edfordshire Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
lelfast Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
letsi Cadwaladr University Health Board [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
IMI Healthcare [14]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
urcot Hall Bromsgrove [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
alderdale and Huddersfield NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ambridge University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
helsea and Westminster Hospital NHS Foundation Trust [1]	-	-	-	-	-	_	_	-	-	-	-	-	-	-	-			
hesterfield Royal Hospital NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ounty Durham and Darlington NHS Foundation Trust [1]	_	-	-	_	_	_	_	-	_	_	-	-	-	-	-			
roydon Health Services NHS Trust [1]	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-			
Partford and Gravesham NHS Trust [1]	-	-	-	-	_	_	_	_	_	_	-	-	-	-	_			
psom and St. Helier University Hospitals NHS Trust [2]	15	2 13.33%	-	26.9	1.9	92.9%	3.4	87.4%	-	-	-	-	-	-	-			
ife NHS [1]	_	-	-	-	_	_	_	_	_	_	-	-	-	-	-			
orth Valley NHS [2]	_	-	-	-	_	_	_	_	_	_	_	-	-	-	-			
imley Health NHS Foundation Trust [4]	_	-	-	_	_	_	_	_	_	_	-	-	-	-	-			
ateshead Health NHS Foundation Trust [1]	_	_		_	_	_	_	_	_	_	_	_	_					
loucestershire Hospitals NHS Foundation Trust [3]																		
uy's and St. Thomas' NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ampshire Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ull University Teaching Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ettering General Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ing's College Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
(ingsbridge Private Hospital Belfast [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ancashire Teaching Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
eeds Teaching Hospitals NHS Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ewisham and Greenwich NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ondon Bridge Hospital [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
(anchester University NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
lid and South Essex NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
lid Yorkshire Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ew Victoria Hospital [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
orth Bristol NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
orth Cumbria Integrated University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
orthamptonshire Healthcare NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
orthern Devon Healthcare NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
orthern Lincolnshire and Goole NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
orthumbria Healthcare NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
ottingham University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
uffield Health [13]	-			-	-	-	-	_	_	-	-	-	-	-	-			
kford University Hospitals NHS Foundation Trust [1]																		
	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-			
ortsmouth Hospitals NHS Trust [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

Royal Berkshire NHS Foundation Trust [1] - <th></th>	
Royal United Hospitals Bath NHS Foundation Trust [1] -	
Sandwell and West Birmingham Hospitals NHS Trust [2] -	
Sheffield Teaching Hospitals NHS Foundation Trust [1] -	
South Eastern Health and Social Care Trust [2] - <t< td=""><td></td></t<>	
South Tees Hospitals NHS Foundation Trust [1] - <td< td=""><td></td></td<>	
South Tyneside and Sunderland NHS Foundation Trust [1] -	
South Warwickshire NHS Foundation Trust [2]	
Southern Health and Social Care Trust [1]	
Spire Healthcare Group [16]	
St. George's University Hospitals NHS Foundation Trust [2]	
St. Josephs Hospital, Newport [1]	
Taunton and Somerset NHS Foundation Trust [1]	
The Dudley Group NHS Foundation Trust [1]	
The Princess Alexandra Hospital NHS Trust [1]	
The Rotherham NHS Foundation Trust [1]	
Torbay and South Devon NHS Foundation Trust [6] 7 34.9 13.6 61.0 8 69.1 8	
Ulster Independent Clinic [3]	
University Hospital of Derby and Burton NHS Foundation Trust [1]	
University Hospital Southampton NHS Foundation Trust [2] 3 29.3 6.0 79.5%	
University Hospitals Bristol and Weston NHS Foundation Trust [1]	
University Hospitals Coventry and Warwickshire NHS Trust [4]	
University Hospitals of Leicester NHS Trust [1]	
University Hospitals of North Midlands NHS Trust [2]	
University Hospitals Plymouth NHS Trust [1]	
University Hospitals Sussex NHS Foundation Trust [2]	
Warrington and Halton Hospitals NHS Foundation Trust [2] – – – – – – – – – – – – –	
West Hertfordshire Hospitals NHS Trust [2]	
West Suffolk NHS Foundation Trust [2]	
Western Health and Social Care Trust [1]	
Worcestershire Acute Hospitals NHS Trust [1]	
Yeovil District Hospital NHS Foundation Trust [1]	
York Teaching Hospital NHS Foundation Trust [6] – – – – – – – – – – – – – – – –	
174 trusts found for Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX*) sorted by name (alphabetically ascending).	

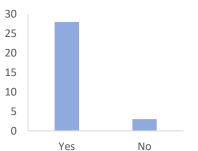
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

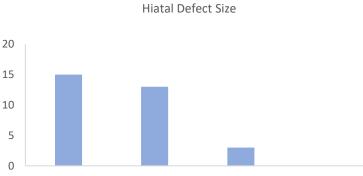
Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation (LINX)- All Centres

*To appear in statistical analysis the patient must have a complete or in PROM

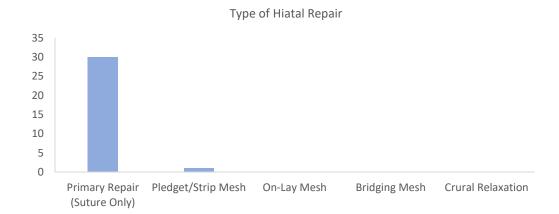


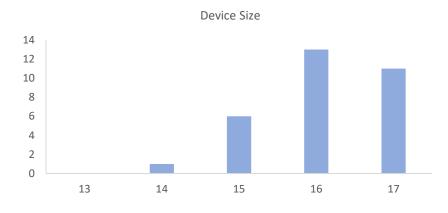
Hiatus Hernia Present



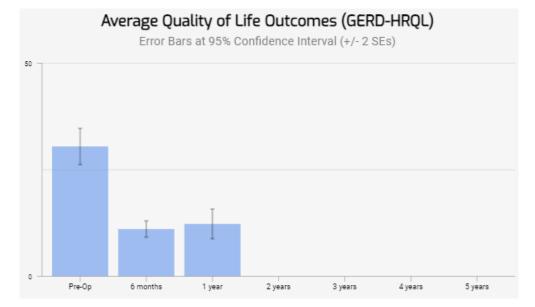








Combined UK GERD-QoL Score PROMs- Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX[™]) All NHS Trusts & Independent HealthCare Organisations



Primary Anti	-Reflux Surge	ery (M	lagnetic S	phinct	er Augn	nentatio	n LIN)	(™)		
Total				3	31					
Sex										
Male/Female/Other	14			1	7			-		
Age										
Median				4	45					
Range				20)-75					
Episodes										
Day Case				21 (68%)					
Inpatient		10 (32%)								
Time on Waiting List										
Median (Days)		81								
Range (Days)	31-678									
Method										
Open					-					
Laparoscopic				28 (90%)					
Robotic		3 (10%)								
Converted					-					
Hiatus Hernia Present	Yes No									
		28 (90)%)			3 (10%)				
Hiatal Defect	Type A (<3 cr	n)	Type B(3-6	5cm)	Type C ((>6-9cm) Type D (>9cm)				
	15		13		:	3		-		
Hiatal Repair	Primary	Pleo	dget/Strip	On-Lay	y Mesh	Bridging		Crural		
	Suture		Mesh			Mesh		Relaxation		
	30		1		-	-		-		
LINX™ Size	13		14	-	15	16		17		
	-		1		6	13		11		
Gastroplasty		Yes	s				No			
Length of Stay										
Median (Days)					0					
Range (Days)				0)-4					
Complications										
Morbidity				1 (3	8.2%)					
Return to Theatre					-					
Readmission (90 days)				5 (1	16%)					
Mortality					-					
QoL Outcomes										
	N	Mean	(x) R	ange	SD		SE	95% CI		
Pre-Procedure QoL	31	28.	2 4	l-50	11.2	2	2.0	24.0-32.0		
6 Month QoL	12	10.	2 2	2-50	5.5		1.6	7.0-13.4		
1 Year QoL	9	11.	3 1	-50	6.4		2.2	7.0-15.6		
2 Year QoL	-	-		-	-		-	-		
3 Year QoL	-	-		-	-		-	-		
4 Year QoL	-	-		-	-		-	-		
5 Year QoL	-	-		-	-		-	-		

Primary Anti-Reflux Surgery (Magnetic Sphincter Augmentation LINX™) Patient

Reported Outcome Measures (PROMs) NHS Trusts- (Individual Trust vs Peer Trusts) Included- all Trusts who have entered at least 1 patient into any NHSR reporting category *Excluded- Trusts that have not entered any patients into any category*

*To appear in statistical analysis the patient must have a complete status or in PROM status

*Outcome data may or may not be representative of all activity in a specific Trust/Organisation

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	6/25	21.8	28.0	-22.1%
6 months:	-/12	-	10.3	-100 % 🖡
1 year:	— / 9	-	11.1	-100 % 🖡
2 years:	-/-	-	-	-
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	60.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	15/16	26.9	28.0	-3.9 % 🖡
6 months:	6/6	4.8	10.3	-53.4 % 🖡
1 year:	5/4	8.2	11.1	-26.1% 🖡
2 years:	-/-	-	-	-
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕑		69.5%	60.4%	15.1% 🕇
PROM Ratio: 🔞		100.0%	100.0 %	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/31	-	28.0	-100 % 🖡
6 months:	-/12	-	10.3	-100 % 🖡
1 year:	- /9	-	11.1	-100 % 🖡
2 years:	-/-	-	-	-
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	60.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 👃

Average Quality of Life Outcomes (GERD-HRQL) Epsom and St. Helier University Hospitals NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

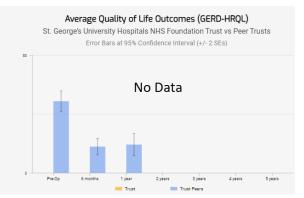
3 year

3 years

4 years

5 vea

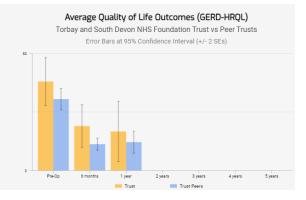
Average Quality of Life Outcomes (GERD-HRQL) Aneurin Bevan University Health Board vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)







Pre-Op: 7/24 34.9 28.0 24.6 % f 6 months: 5/7 17.4 10.3 68.9 % f 1 year: 4/6 15.3 11.1 37.8 % f 2 years: -/- - - - 3 years: -/- - - - 4 years: -/- - - - 5 years: -/- - - - 5 years: -/- - - - Improvement: \$62.% 60.4 % -7.0 % I PROM Ratio: 100.0 % 100.0 % 0.0 %	QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
1 year: 4/5 15.3 11.1 37.8 % 2 years: -/- - - -/- - - - 3 years: -/- - - -/- - - - 4 years: -/- - - 5 years: -/- - - Improvement: 56.2 % 60.4 % -7.0 % I	Pre-Op:	7/24	34.9	28.0	24.6 % 🕇
2 years: -/- - - 3 years: -/- - - -/- - - - 4 years: -/- - - 5 years: -/- - - Improvement: 562% 60.4% -7.0% I	6 months:	5/7	17.4	10.3	68.9% †
3 years: -/- - - 4 years: -/- - - 5 years: -/- - - Improvement: 562% 60.4% -7.0%	1 year:	4/5	15.3	11.1	37.8%
4 years: -/ 5 years: -/ Improvement: © 562 % 60.4 % -7.0 % I	2 years:	-/-	-	-	-
5 years: -/	3 years:	-/-	-	-	-
Improvement:	4 years:	-/-	-	-	-
	5 years:	-/-	-	-	-
PROM Ratio: @ 100.0 % 100.0 % 0.0 %	Improvement: 📀		56.2%	60.4%	-7.0 % 🖡
	PROM Ratio: 🔞		100.0 %	100.0%	0.0%



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	3/28	29.3	28.0	4.6 % ↑
6 months:	1/11	6.0	10.3	-41.7 % 🖡
1 year:	-/9	-	11.1	-100 % 👃
2 years:	-/-	-	-	-
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		79.5%	60.4%	31.6 % 🕇
PROM Ratio: 🕑		100.0%	100.0 %	0.0%

Average Quality of Life Outcomes (GERD-HRQL) University Hospital Southampton NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)



Primary Hiatus Hernia Repair- All UK Trusts/Private Health Care Organisations

162 registered patients, 49 active, 113 complete, from 17 NHS Trusts/Independent HealthCare Organisations

	0		Dec Concert	on Onl 6 month QoL 1 year QoL 2 year QoL			ar QoL	3 year QoL 4 year QoL				5 year QoL			
rust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)	Impro	vement +/-	Impro	vement +/-	Impro	wement +/-	Improv	ement +/-	Improv	ement +/-	Improvi Score
verall Trusts/Organisations	113	9 7.96%	-	27.7	5.5	80.1%	6.5	76.5%	2.0	92.8%	-	-	-	-	-
neurin Bevan University Health Board [4]	2		-	17.0	-	-	-	-	-	-	-	-	-	-	-
spen Healthcare [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
arking, Havering and Redbridge University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
edfordshire Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
elfast Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
etsi Cadwaladr University Health Board [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MI Healthcare [14]	3		-	24.0	3.0	87.5%	4.0	83.3%	-	-	-	-	-	-	-
urcot Hall Bromsgrove [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alderdale and Huddersfield NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ambridge University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
helsea and Westminster Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
hesterfield Royal Hospital NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ounty Durham and Darlington NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
roydon Health Services NHS Trust [1]	7	1 14.29%	-	24.1	6.3	73.9%	6.0	75.1s	-	-	-	-	-	-	-
artford and Gravesham NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-
psom and St. Helier University Hospitals NHS Trust [2]	5	1 20.00%	-	28.6	5.6	80.4%	6.0	79.0s	-	-	-	-	-	-	-
fe NHS [1]	_		-	-	-	-	_	-	_	_	_	_	-	-	-
orth Valley NHS [2]				-											
rimley Health NHS Foundation Trust [4]	2			30.5	0.5	98.4%	_	-	-	-	-	-	-	-	-
ateshead Health NHS Foundation Trust [1]	2			50.5	0.0	20.4%									
loucestershire Hospitals NHS Foundation Trust [3]	8	1 12.50%		25.9	4.0	84.6%	8.0	69.1s	_	_	_	_		_	_
•	0	1 12.50%	-	20.9	4.0	04.0%	0.0	09.1%							
uy's and St. Thomas' NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ampshire Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ull University Teaching Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ettering General Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ing's College Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ingsbridge Private Hospital Belfast [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ancashire Teaching Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
eeds Teaching Hospitals NHS Trust [3]	2	-	-	42.0	3.0	92.9%	2.0	95.2%	-	-	-	-	-	-	-
ewisham and Greenwich NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ondon Bridge Hospital [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ianchester University NHS Foundation Trust [3]	6	-	-	44.0	6.8	84.5%	3.5	92.0%	-	-	-	-	-	-	-
lid and South Essex NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
id Yorkshire Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ew Victoria Hospital [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
orth Bristol NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
orth Cumbria Integrated University Hospitals NHS Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-
orthamptonshire Healthcare NHS Foundation Trust [3]	16		-	30.9	3.7	88.0%	7.5	75.7%	-	-	-	-	-	-	-
orthern Devon Healthcare NHS Trust [1]	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-
orthern Lincolnshire and Goole NHS Foundation Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-
orthumbria Healthcare NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ottingham University Hospitals NHS Trust [1]	-		-	_	_	_	_	-	-	_	_	_	-	-	-
uffield Health [13]	_		-	_	_	-	-	-	-	_	-	-	-	-	-
xford University Hospitals NHS Foundation Trust [1]															
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ortsmouth Hospitals NHS Trust [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NHSR 2023 National Hiatal Surgery Registry Report

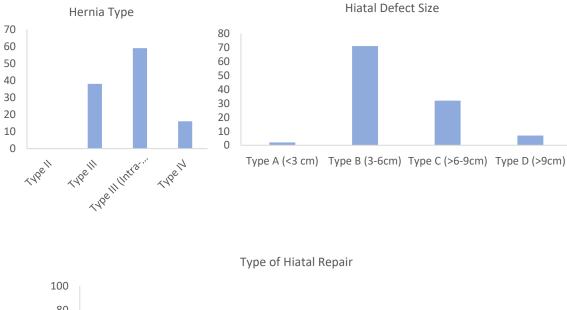
Royal Berkshire NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royal Cornwall Hospitals NHS Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royal United Hospitals Bath NHS Foundation Trust [1]	1	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-
Sandwell and West Birmingham Hospitals NHS Trust [2]	_	-	-	-	-	_	_	-	-	_	_	-	-	-	_	-
Sheffield Teaching Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Eastern Health and Social Care Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-
South Tees Hospitals NHS Foundation Trust [1]	17	2 11.76%	-	24.4	10.2	58.2%	10.1	58.6%	-	-	-	-	-	-	-	-
South Tyneside and Sunderland NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Warwickshire NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southern Health and Social Care Trust [1]	13	3 23.08%	-	25.5	4.5	82.4%	5.4	78.8%	-	-	-	-	-	-	-	-
Spire Healthcare Group [16]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. George's University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Josephs Hospital, Newport [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taunton and Somerset NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Dudley Group NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Princess Alexandra Hospital NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Rotherham NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	14	1 7.14%	-	30.9	5.4	82.5%	3.9	87.4%	2.0	93.5%	-	-	-	-	-	-
Ulster Independent Clinic [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital of Derby and Burton NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	7	-	-	23.4	5.9	74.8%	-	-	-	-	-	-	-	-	-	-
University Hospitals Bristol and Weston NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	5	-	-	17.6	6.2	64.8%	7.3	58.5%	-	-	-	-	-	-	-	-
University Hospitals of Leicester NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Plymouth NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Sussex NHS Foundation Trust [2]	1	-	-	39.0	1.0	97.4%	-	-	-	-	-	-	-	-	-	-
Warrington and Halton Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Hertfordshire Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	4	-	-	28.0	1.5	94.6%	1.7	93.9%	-	-	-	-	-	-	-	-
Western Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcestershire Acute Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yeavil District Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Teaching Hospital NHS Foundation Trust [6]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174 trusts found for Primary Hiatus Hemia Repair Surgery sorted by name (alphabetically ascending).																

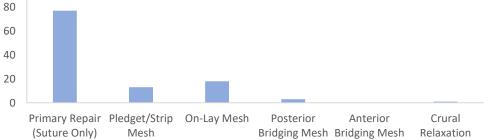
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Primary Hiatus Hernia Repair- All Centres

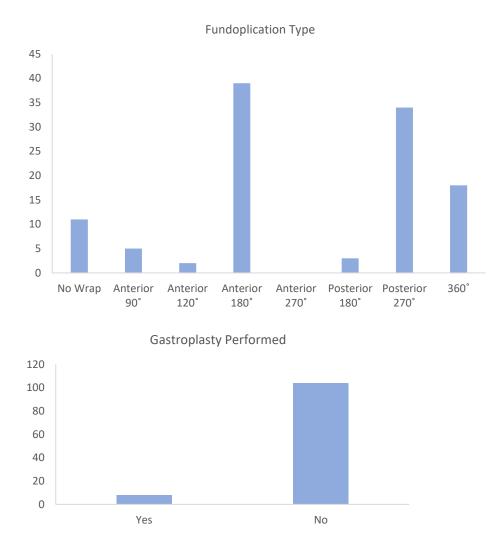
*To appear in statistical analysis the patient must have a complete or in PROM







NHSR 2023 National Hiatal Surgery Registry Report



Combined UK Hiatus Hernia-QoL Score PROMs- Primary Hiatus Hernia Repair All NHS Trusts & Independent HealthCare Organisations





	F	Prima	ry Hiat	us Her	nia Re	epair				
Total						113				
Sex										
Male/Female/Other		34			7	9			-	
Age	54 75									
Median		70								
Range						-90 6-90				
Episodes		50-90								
Day Case		7 (C 2%)								
Inpatient		7 (6.2%)								
Time on Waiting List		106 (93.8%)								
Median (Days)						142				
Range (Days)						-762				
Method					T	-762				
Open					1/	0.0%)				
Laparoscopic						0.9%)				
Robotic						(93.8%)				
Converted					ь (5.3%)				
	Tura			Turne III		-	III /listus		т.	
Hiatus Hernia Type	Туре	11		Type III			III (Intra-		I Y	vpe IV
				38		Thorac	ic-Stomacl 59	1)		16
Hiatal Defect	- Turno A (/	() am)			amal	Tuno		T. 17		
Hiatal Delect	Type A (<	Type A (<3 cm)Type B(3-6cm)Type C (>6-					Type D (>9cm)			
	9cm) 2 66 29 7							7		
Hiatal Repair	Primary				Onla	y Mesh	Bridging	Mach		Crural
matai Nepali	Suture	′	Pledget Me	-	UII-La	y west	Бпадша	wiesti	D	elaxation
	78		13			18	3		- 1	1
Fundoplication Type	None	Ante		Anterior			Posterior	Poster	ior	360°
r undopnoution rype	None	Part		Partial		rtial	Partial	Partia		Complete
		90		120°		80°	180°	270°		complete
	12	5		2	-	39				18
Gastroplasty		-	Yes				-	34 No		
			8					105		
Length of Stay			-							
Median (Days)						2				
Range (Days)					C)-22				
Complications										
Morbidity (Overall)					7(6.2%)				
Return to Theatre						-				
Readmission (90					11	(9.7%)				
days)						(0.17,0)				
Mortality						-				
QoL Outcomes										
	N	Me	an (x)	Rar	nge	SD		SE		95% CI
Pre-Procedure QoL	112	2	27.7	6-!	50	9.9		0.9		25.8-29.6
6 Month	79							4.7-7.1		
1 Year QoL	42							5.1-8.7		
2 Year QoL	1		2.0	2-					-	-
3 Year QoL	-		-				-			
4 Year QoL	-						-			
5 Year QoL	-									
							-			

Primary Hiatus Hernia Repair

Patient Reported Outcome Measures (PROMs) NHS Trusts- (Individual Trust vs Peer Trusts) Included- all Trusts who have entered at least 1 patient into any NHSR reporting category Excluded- Trusts that have not entered any patients into any category

*To appear in statistical analysis the patient must have a complete status or in PROM status

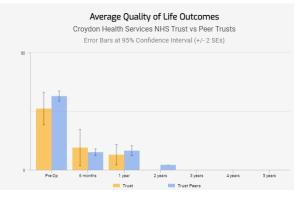
*Outcome data may or may not be representative of all activity in a specific Trust/Organisation

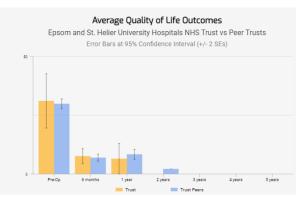
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/107	17.0	29.0	-41.4 % 👃
6 months:	-/75	-	6.0	-100 % 🖡
1 year:	-/41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	93.1%	-100 % 👃
PROM Ratio: 🕜		-	100.0 %	-100 % 👃

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	7/102	24.1	29.0	-16.9 % 🖡
6 months:	5/70	8.8	7.0	25.7 % 🕇
1 year:	2/39	6.0	7.6	-21.1 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		75.1%	93.1%	-19.3 % 🖡
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	5/104	28.6	27.5	4.0 % †
6 months:	4/71	7.0	6.4	9.4 % 🕇
1 year:	2/39	6.0	7.7	-22.1 %
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		79.0%	92.7%	-14.8 % 🖡
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%

Average Quality of Life Outcomes Aneurin Bevan University Health Board vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)



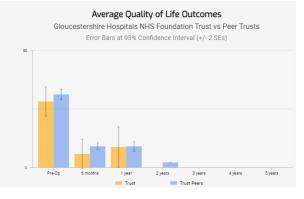


QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/107	30.5	27.6	10.5 % †
6 months:	1/74	1.0	7.4	-86.5 % 🖡
1 year:	-/41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		96.7%	92.8%	4.2%
PROM Ratio: @		100.0%	100.0%	0.0%

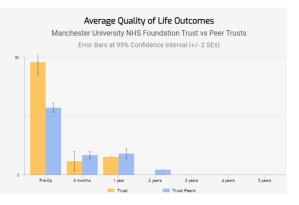
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	8/101	25.9	28.7	-9.8%
6 months:	6/69	5.3	8.3	-36.1%
1 year:	5/36	8.0	8.3	-3.6 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		69.1%	93.0%	-25.7 % 👃
PROM Ratio: 🚱		100.0 %	100.0 %	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/107	42.0	27.0	55.6 % 🕇
6 months:	1/74	3.0	8.6	-65.1%
1 year:	1/40	2.0	8.9	-77.5%
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		95.2%	92.6%	2.8%
PROM Ratio: 🔞		100.0%	100.0%	0.0%

Average Quality of Life Outcomes Frimley Health NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

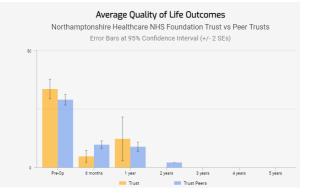






QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	6/104	44.0	26.2	67.9%
6 months:	4/72	5.3	7.7	-31.2 % 🖡
1 year:	1/40	7.0	8.3	-15.7 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		84.1%	92.4%	-9.0 % 🖡
PROM Ratio: 🞯		100.0 %	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	16/93	30.9	26.7	15.7 % 🕇
6 months:	11/64	4.4	9.0	-51.1 % 👃
1 year:	4/37	11.3	8.2	37.8% 🕇
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		63.4%	92.5%	-31.5 % 🖡
PROM Ratio: 🔞		100.0%	100.0 %	0.0%



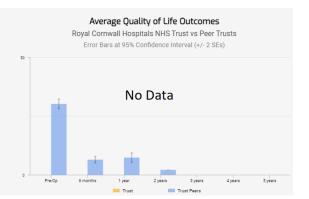
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 🖡
6 months:	-/75	-	6.0	-100 % 👃
1 year:	-/41	-	6.8	-100 % 👃
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	92.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 👃



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 🖡
6 months:	-/75	-	6.0	-100 % 🖡
1 year:	-/41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	92.8%	-100 % 👃
PROM Ratio: 🚱		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 👃
6 months:	-/75	-	6.0	-100 % 👃
1 year:	-/41	-	6.8	-100 % 👃
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		-	92.8%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 👃



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/108	25.0	27.9	-10.4 % 🖡
6 months:	-/75	-	6.0	-100 % 👃
1 year:	-/41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	92.8%	-100 %
Improvement: 🐨		0.0%	92.8%	-100 % 🕇
PROM Ratio: 🔞		-	100.0%	-100 % 🖡



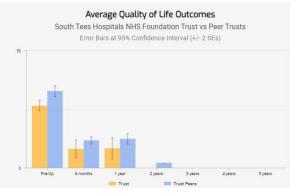
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 🖡
6 months:	-/75	-	6.0	-100 % 🖡
1 year:	-/41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	92.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 🖡
6 months:	-/75	-	6.0	-100 % 👃
1 year:	-/41	-	6.8	-100 % 👃
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 😰		-	92.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0%	-100 % 👃



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	17/92	24.4	30.1	-18.9 % 🖡
6 months:	11/64	7.5	10.8	-30.6 % 🖡
1 year:	10/31	7.7	11.4	-32.5 🖘 👃
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		68.4%	93.4%	-26.8 % 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%



ference v Peers Average Quality of Life Outcoo 100 % ↓ Sandwell and West Birmingham Hospitals NHS T 100 % ↓ Error Bars at 95% Confidence Interval (+/-100 % ↓ 50 100 % ↓

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	12/97	24.5	29.6	-17.2 % 👃
6 months:	9/66	5.6	10.7	-47.7 % 👃
1 year:	3/38	4.7	9.7	-51.5 % 🖡
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		80.8%	93.2%	-13.3 % 🖡
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%

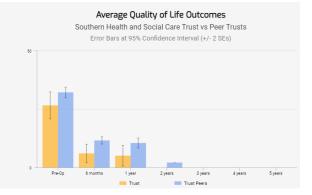
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 🖡
6 months:	-/75	-	6.0	-100 % 👃
1 year:	- / 41	-	6.8	-100 % 👃
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🚱		-	92.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	14/95	30.9	26.5	16.6 % 🕇
6 months:	13/62	5.8	9.9	-41.4 % 🖡
1 year:	8/33	4.9	11.4	-57.0 % 🖡
2 years:	1/-	2.0	-	100 % 🕇
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		93.5%	57.0%	64.0%
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%

z years.	1/-	2.0	_	100 %
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		93.5%	57.0 %	64.0%
PROM Ratio: 🕜		100.0 %	100.0 %	0.0%

Ool Average Scores

OUT AVELAGE SCOLES	(Trust / Peers)	(Ave.)	(Ave.)	v Peers
Pre-Op:	7/102	24.4	28.5	-14.4 % 🖡
6 months:	3/72	9.7	8.8	10.2 % †
1 year:	- / 41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		60.2%	93.0%	-35.3 % 🖡
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%







Average Quality of Life Outcomes University Hospital Southampton NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs) 3 years 1 year 4 years 5 years

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	5/104	17.6	29.0	-39.3 % 🖡
6 months:	5/70	6.2	9.3	-33.3 % 🖡
1 year:	3/38	9.7	6.8	42.6 % 🕇
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕑		44.9%	93.1%	-51.8 % 👃
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%

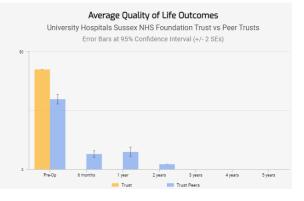
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/109	-	27.8	-100 % 🖡
6 months:	-/75	-	6.0	-100 % 👃
1 year:	-/41	-	6.8	-100 % 👃
2 years:	-/1	-	2.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	92.8%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/108	39.0	27.4	42.3%
6 months:	-/75	-	6.0	-100 % 👃
1 year:	-/41	-	6.8	-100 % 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	92.7 %	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 👃

University Hospitals Coventry and Warwickshire NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

Average Quality of Life Outcomes





QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/105	28.0	27.8	0.7 % <mark>†</mark>
6 months:	2/73	1.5	8.4	-82.1 %
1 year:	2/39	1.5	8.9	-83.1 🕯 🖡
2 years:	-/1	-	2.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		94.6%	92.8%	1.9% 🕇
PROM Ratio: 10		100.0%	100.0%	0.0%



Hybrid Anti-Reflux/Hiatus Hernia Surgery- All UK Trusts/Private Health Care Organisations

70 registered patients, 25 active, 45 complete, from 11 NHS Trusts/Independent HealthCare Organisations

					n Ool 6 month QoL 1 year QoL 2 year QoL					3 year QoL 4 year QoL 5 year QoL						
ust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)	impro Score	wement +/-	I yes Impro Score	wement +/-	Impro Score	vement +/-	3 yea Improv Score	r QOL vement +/-	4 year Improve Score	ement +/-	S yea Improv Score	vem
verall Trusts/Organisations	45	2 4.44%	-	27.6	3.8	86.2%	2.8	89.9%	1.0	96.4%	-	-	-	-	-	
neurin Bevan University Health Board [4]	4	-	-	27.0	3.0	88.9%	-	-	-	-	-	-	-	-	-	
spen Healthcare [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
arking, Havering and Redbridge University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
edfordshire Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
elfast Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
etsi Cadwaladr University Health Board [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MI Healthcare [14]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
urcot Hall Bromsgrove [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
alderdale and Huddersfield NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ambridge University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	_	_	_	_	-	-	-	-	-	
helsea and Westminster Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	
hesterfield Royal Hospital NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ounty Durham and Darlington NHS Foundation Trust [1]	-		-	-	-	-	-	-	_	-	_	-	_	-	-	
roydon Health Services NHS Trust [1]	6	1 16.67%		27.3	6.8	75.1%	8.7	68.1%	-	-	-	-	-	-	-	
	0	16.67%		27.5	0.8	73.1%	0.7	00.1%		_						
artford and Gravesham NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
psom and St. Helier University Hospitals NHS Trust [2]	1	-	-	9.0	-	-	-	-	-	-	-	-	-	-	-	
fe NHS [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orth Valley NHS [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
imley Health NHS Foundation Trust [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ateshead Health NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
loucestershire Hospitals NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
uy's and St. Thomas' NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ampshire Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ull University Teaching Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ettering General Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ing's College Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ingsbridge Private Hospital Belfast [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ancashire Teaching Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
eeds Teaching Hospitals NHS Trust [3]	-	-	-	-	-	-	_	_	_	_	-	-	-	-	-	
ewisham and Greenwich NHS Trust [2]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	
ondon Bridge Hospital [2]	-	-	-	-	_	_	-	-	-	_	-	-	-	-	-	
lanchester University NHS Foundation Trust [3]	6			43.0	3.8	91.2%	0.8	98.1%	-	-	-	-	-	-	-	
id and South Essex NHS Foundation Trust [1]	_	-	_	_	_	-	-	-	_	-	-	-	-	-	_	
id Yorkshire Hospitals NHS Trust [1]									_		_					
ew Victoria Hospital [1]	_	-		_	_											
ew victoria Hospital [1] orth Bristol NHS Trust [1]					-				_							
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orth Cumbria Integrated University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthamptonshire Healthcare NHS Foundation Trust [3]	4	-	-	17.5	0.3	98.3%	0.7	96.0%	-	-	-	-	-	-	-	
orthern Devon Healthcare NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthern Lincolnshire and Goole NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthumbria Healthcare NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ottingham University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
uffield Health [13]	2	-	-	21.0	-	-	-	-	-	-	-	-	-	-	-	
ford University Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

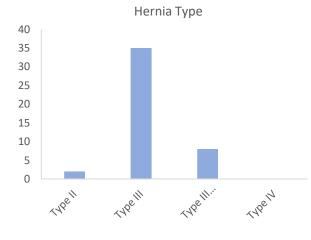
Royal Berkshire NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royal Cornwall Hospitals NHS Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royal United Hospitals Bath NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sandwell and West Birmingham Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sheffield Teaching Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Eastern Health and Social Care Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Tees Hospitals NHS Foundation Trust [1]	16	-	-	28.3	4.8	83.0%	3.0	89.4%	-	-	-	-	-	-	-	-
South Tyneside and Sunderland NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Warwickshire NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southern Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spire Healthcare Group [16]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. George's University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Josephs Hospital, Newport [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taunton and Somerset NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Dudley Group NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Princess Alexandra Hospital NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Rotherham NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	2	1 50.00%	-	19.0	2.5	86.8%	3.0	84.2%	1.0	94.7%	-	-	-	-	-	-
Ulster Independent Clinic [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital of Derby and Burton NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Bristol and Weston NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	2	-	-	21.0	2.5	88.1%	-	-	-	-	-	-	-	-	-	-
University Hospitals of Leicester NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Plymouth NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Sussex NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warrington and Halton Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Hertfordshire Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	1	-	-	24.0	3.0	87.5%	3.0	87.5%	-	-	-	-	-	-	-	-
Western Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcestershire Acute Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yeovil District Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Teaching Hospital NHS Foundation Trust [6]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174 trusts found for Hybrid Anti-Reflux / Hiatus Hemia Surgery sorted by na	me (alphab	petically ascendi	ng).													

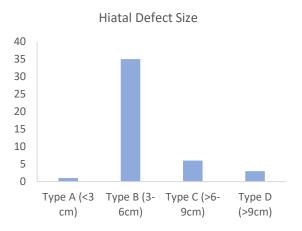
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

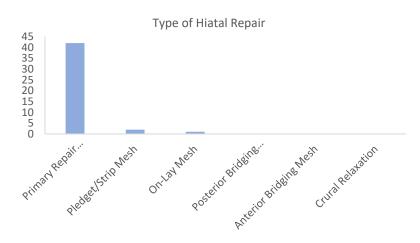
Hybrid Anti-Reflux/Hiatus Hernia Repair- All Centres

*To appear in statistical analysis the patient must have a complete or in PROM

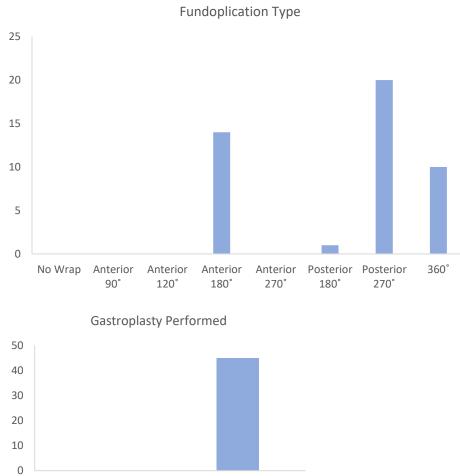














Combined UK GERD-QoL Score PROMs- Hybrid Anti-Reflux/Hiatus Hernia Surgery All NHS Trusts & Independent HealthCare Organisations



GERD-QoL Score (0-50)

	Hybrid An	ti-Re	flux/H	liatus	Herni	ia Surge	erv						
Total	/					15							
Sex													
Male/Female/Other	20				2	5				-			
Age						•							
Median					F	51							
Range						-81							
Episodes													
Day Case	13 (29%)												
Inpatient	32 (71%)												
Time on Waiting List		52 (/170)											
Median	146												
Range	2-929												
Method	<u> </u>												
Open						-							
Laparoscopic													
Robotic	<u>44 (97.7%)</u> 1 (2.2%)												
Converted					<u>т (2</u>	∠/0]							
Hiatus Hernia Type	Turne II			Turnell	1	-	111 / 1.0 + 1.0						
nialus nerilia Type	Type II			Type II	I		III (Intra oracic-	-		Type IV			
							omach)						
	2			35		50	8						
Hiatal Defect	Z Type A (<3	cm)	35 Type B (3-6cm)		Type	-		Type D (>9cm)					
	Type A (<3	Type	Type B (S beili)			Type C (>6- Type D (> 9cm)							
	1			35) 6			3			
Hiatal Repair	Primary	DL	edget/S				Bridgir			Crural			
	Suture	FI	Mesh			y wesh	Mesh	ig		Relaxation			
	42		2			1	IVIESII	_		Relaxation			
Fundoplication Type	Anterior	Δnt	erior	Δnt	erior	Poster	rior	Poste	rior	360°			
	Partial 90°		rtial	-	rtial	Parti	-	Part		Complete			
			20°	180°		180		270		complete			
	_		-		14	100		20		10			
Gastroplasty	Yes							No		10			
Cuchoplaciy			-				4	3 (10					
Length of Stay													
(Days)													
Median						1							
Range					0-3	365							
Complications													
Morbidity (Overall)					2 (4	.4%)							
Return to Theatre						-							
Readmission (90					3 (6	5.7%)							
days)													
Mortality						-							
QoL Outcomes													
	N	Mea	an (x)	Ra	nge	SD		SE		95% CI			
Pre-Procedure QoL	45		7.6		47	11.	0	1.6	5	24.4-30.8			
6 Month QoL	24		.0		-13	4.2		0.9		3.3-6.7			
1 Year QoL	14		.6	1	-9	2.9		0.8		2.0-5.2			
2 Year QoL	1		10		-1	-			-	-			
3 Year QoL	-		-		-	-				-			
				1		+	-			-			
	-		-		-	-		-		-			
4 Year QoL 5 Year QoL	-		-		- -	-		-		-			

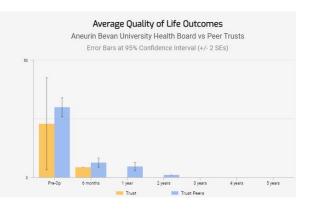
Hybrid Anti-Reflux/Hiatus Hernia Surgery- Patient Reported Outcome Measures (PROMs) NHS

Trusts- (Trust vs Peer Trusts)

Included- NHSR registered NHS Trusts who have entered at least 1 patient into any NHSR reporting catorgery Excluded- NHSR registered NHS Trusts that have not entered any patients into any catorgery *To appear in statistical analysis the patient must have a complete status or in PROM status

*Outcome data may or may not be representative of all activity in a specific Trust/Organisation

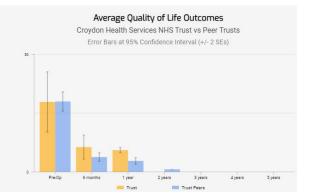




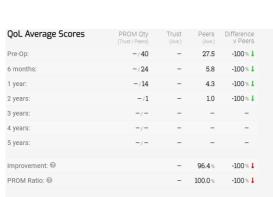
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	96.4%	-100 % 👃
PROM Ratio: 🞯		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	6/34	27.3	27.5	-0.7 % 🖡
6 months:	3/21	9.7	5.8	67.2 % †
1 year:	2/12	8.5	4.3	97.7 % <mark>†</mark>
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		68.9%	96.4%	-28.5 % 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

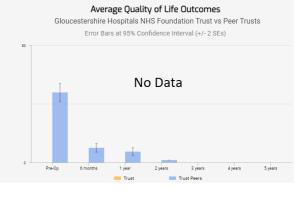


QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/39	9.0	27.5	-67.3 % 🖡
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕑		0.0%	96.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 👃





QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 👃
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 📀		-	96.4%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



Average Quality of Life Outcomes Epsom and St. Helier University Hospitals NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

> Average Quality of Life Outcomes Frimley Health NHS Foundation Trust vs Peer Trusts

3 years

4 years

4 years

5 years

5 years

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 🖡
1 year:	-/14	-	4.3	-100 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	96.4%	-100 % 🖡
PROM Ratio: 🚱		-	100.0 %	-100 % 🖡



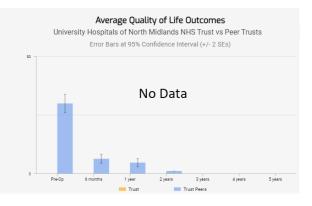
- - -- - -96.4 % -100 % ↓ 100.0 % -100 % ↓ 0 PreOp 6 motells 1 year

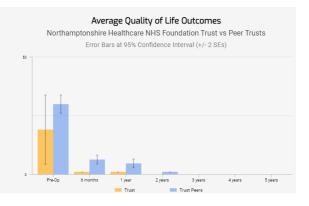
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	6/34	43.0	27.5	56.4%
6 months:	5/19	3.0	5.8	-48.3 % 🖡
1 year:	2/12	1.5	4.3	-65.1% 👃
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		96.5%	96.4%	0.1%
PROM Ratio: 🔞		100.0%	100.0 %	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 🖡
1 year:	-/14	-	4.3	-100 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕑		-	96.4%	-100 % 🖡
PROM Ratio: 🔞		-	100.0%	-100 % 🖡

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/36	17.5	27.5	-36.4 % 🖡
6 months:	1/23	1.0	5.8	-82.8 % 🖡
1 year:	2/12	1.0	4.3	-76.7 % 🖡
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕑		94.3%	96.4%	-2.2 % 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

	Average Quality of Life Outcomes Manchester University NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)						
50	I						
		I	I		_ 1		
	Pre-Op	6 months	1 year	2 years	3 years	4 years	5 years

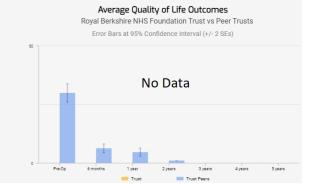




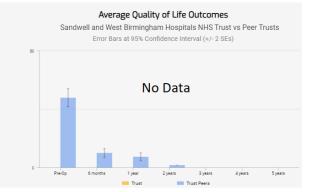
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 🖡
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	96.4%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 📀		-	96.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 👃

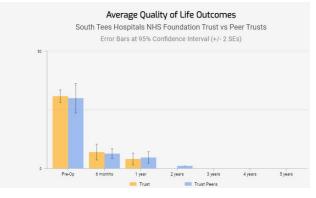


QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 🖡
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
0				
Improvement: 🔞		-	96.4%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 🖡
1 year:	-/14	-	4.3	-100 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 📀		-	96.4%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 👃

Average Quality of Life Outcomes Sheffield Teaching Hospitals NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs) No Data



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	16/24	28.3	27.5	2.9% †
б months:	9/15	6.4	5.8	10.3 % 🕇
1 year:	6/8	3.7	4.3	-14.0 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 😡		86.9%	96.4%	-9.9%
PROM Ratio: 🕜		100.0%	100.0%	0.0%

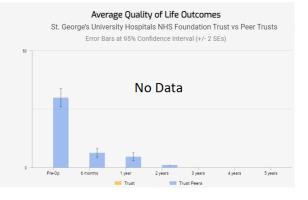
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 👃
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 🖡
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 📀		-	96.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 👃



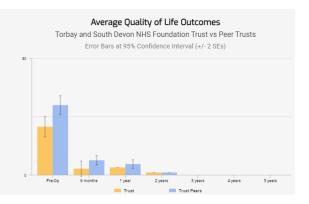
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 🖡
6 months:	-/24	-	5.8	-100 % 🖡
1 year:	-/14	-	4.3	-100 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		-	96.4%	-100 % 🖡
PROM Ratio: 🔞		-	100.0%	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 👃
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	96.4%	-100 % 🖡
PROM Ratio: 🚱		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/38	19.0	27.5	-30.9 % 🖡
6 months:	2/22	2.5	5.8	-56.9 % 🖡
1 year:	1/13	3.0	4.3	-30.2 % 👃
2 years:	1/-	1.0	1.0	0.0%
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 📀		94.7%	96.4%	-1.8 % 🖡
PROM Ratio: 🔞		100.0 %	100.0 %	0.0%



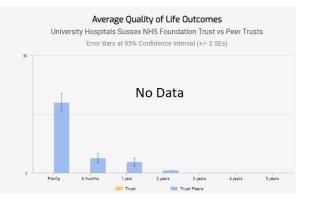
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/38	21.0	27.5	-23.6 % 🖡
6 months:	2/22	2.5	5.8	-56.9%
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	_	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		88.1%	96.4%	-8.6 % 🖡
PROM Ratio: 10		100.0%	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 👃
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		-	96.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 🖡

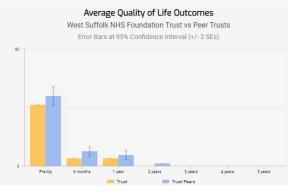
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/40	-	27.5	-100 % 👃
6 months:	-/24	-	5.8	-100 % 👃
1 year:	-/14	-	4.3	-100 % 👃
2 years:	-/1	-	1.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	96.4%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 👃

Average Quality of Life Outcomes University Hospitals Coventry and Warwickshire NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)





QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/39	24.0	27.5	-12.7 % 👃
6 months:	1/23	3.0	5.8	-48.3 % 🖡
1 year:	1/13	3.0	4.3	-30.2 % 🖡
2 years:	-/1	-	1.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	_
5 years:	-/-	-	-	-
Improvement: 🞯		87.5%	96.4%	-9.2 % 🖡
PROM Ratio: 🞯		100.0%	100.0%	0.0%



Cardiomyotomy- All UK Trusts/Private Health Care Organisations

44 registered patients, 14 active, 30 complete, from 11 NHS Trusts/Independent HealthCare Organisations

					6 month QoL 1 year QoL 2 year QoL 3 year QoL				0.01	A	5 year Qol					
rust/Organisation Name	Complete Cases	Morbidity	Mortality	Pre-Op QoL (Mean Ave.)	6 mor Impro Score	wement +/-	Impro Score	er QOL vement +/-	2 yea Improv Score	r QOL rement +/-	3 year Improv Score	r QOL rement +/-	4 year Improve Score	ement +/-	5 year Improve Score	/eme
Verall Trusts/Organisations	30	1 3.33%	-	7.4	2.0	73.0%	1.6	78.4%	3.5	52.7%	-	-	-	-	-	
neurin Bevan University Health Board [4]	1	-	-	8.0	-	-	-	-	-	-	-	-	-	-	-	
ispen Healthcare [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
arking, Havering and Redbridge University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
edfordshire Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lelfast Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Betsi Cadwaladr University Health Board [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3MI Healthcare [14]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Burcot Hall Bromsgrove [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Calderdale and Huddersfield NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ambridge University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
helsea and Westminster Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
hesterfield Royal Hospital NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ounty Durham and Darlington NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Proydon Health Services NHS Trust [1]	-	-		-	-	-	-	-	-	-	-	-	-	-	-	
lartford and Gravesham NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
psom and St. Helier University Hospitals NHS Trust [2]	_	_	_	_	_	_	_	-	_	_	-	-	-	-	-	
ife NHS [1]	_	-	-	-	-	_	_	_	_	-	_	-	_	-	-	
orth Valley NHS [2]	-	-	-	_	_	_	_	-	_	_	-	-	-	-	-	
rimley Health NHS Foundation Trust [4]	1	-		6.0	1.0	83.3%	-	-	-	-	-	-	-	-	-	
ateshead Health NHS Foundation Trust [1]	_	-	-	_	_	_	_	_	-	_	-	-	-	-	-	
loucestershire Hospitals NHS Foundation Trust [3]	_	_	_	_	_	_	_	_	_	_	_	-	_	-	-	
uy's and St. Thomas' NHS Foundation Trust [2]	_			-	_	_	_	-	_	-	_					
ampshire Hospitals NHS Foundation Trust [2]																
ull University Teaching Hospitals NHS Trust [1]	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lettering General Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ing's College Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
(ingsbridge Private Hospital Belfast [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ancashire Teaching Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
eeds Teaching Hospitals NHS Trust [3]	2	-	-	7.5	1.0	86.7%	-	-	-	-	-	-	-	-	-	
ewisham and Greenwich NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ondon Bridge Hospital [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
fanchester University NHS Foundation Trust [3]	1	-	-	12.0	-	-	-	-	-	-	-	-	-	-	-	
(id and South Essex NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
/lid Yorkshire Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lew Victoria Hospital [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lorth Bristol NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lorth Cumbria Integrated University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lorthamptonshire Healthcare NHS Foundation Trust [3]	4	-	-	5.8	1.7	70.7%	1.0	82.8%	-	-	-	-	-	-	-	
orthern Devon Healthcare NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthern Lincolnshire and Goole NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthumbria Healthcare NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lottingham University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
luffield Health [13]	1	-		7.0	1.0	85.7%	-	-	-	-	-	-	-	-	-	
xford University Hospitals NHS Foundation Trust [1]	-	-		-	-	-	-	-	-	-	-	-	-	-	-	
ortsmouth Hospitals NHS Trust [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
amsay Health Care UK [11]	-			-		-	-	-						-	-	



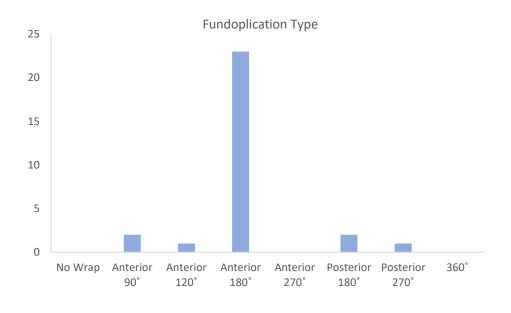
Royal Berkshire NHS Foundation Trust [1]	-	-	-	-	_	-	-	_	_	-	_	-	-	_	-	-
Royal Cornwall Hospitals NHS Trust [3]	-	-	-	_	_	-	-	_	_	-	_	-	-	-	-	-
Royal United Hospitals Bath NHS Foundation Trust [1]	1			4.0	4.0	0.0%	-	-	-	-	-	-	-	-	-	-
Sandwell and West Birmingham Hospitals NHS Trust [2]	-	-	-	_	-	-	_	_	_	_	_	_	_	_	-	_
Sheffield Teaching Hospitals NHS Foundation Trust [1]	_	-	-	_	_	_	_	_	_	_	_	-	-	_	-	-
South Eastern Health and Social Care Trust [2]	_	-	_	_	_	_	_	_	_	_	_	_	_	_	-	-
South Tees Hospitals NHS Foundation Trust [1]	4			9.8	2.8	71.4%	1.3	86.7%	-	-	-	-	-	-	-	-
South Tyneside and Sunderland NHS Foundation Trust [1]	_		-	_	_	_	_	-	_	_	_	-	-	_	-	-
South Warwickshire NHS Foundation Trust [2]	-	-	-	-	_	-	_	_	_	-	_	-	-	-	_	-
Southern Health and Social Care Trust [1]	6		-	6.2	2.7	56.5%	1.5	75.8%	-	-	-	-	-	-	-	-
Spire Healthcare Group [16]	_	-	-	-	-	_	_	_	_	_	_	-	-	_	-	-
St. George's University Hospitals NHS Foundation Trust [2]	_	-	-	_	_	_	_	_	_	_	_	-	_	_	-	-
St. Josephs Hospital, Newport [1]	-			-	-	-	_	-	_	_	_	-	-	-	-	-
Taunton and Somerset NHS Foundation Trust [1]	_	-	-	_	_	_	-	_	_	_	_	-	-	_	-	-
The Dudley Group NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Princess Alexandra Hospital NHS Trust [1]	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Rotherham NHS Foundation Trust [1]	_	-	-	_	_	_	_	_	_	_	_	_	_	_	-	-
Torbay and South Devon NHS Foundation Trust [6]	7	1 14.29%	-	8.6	1.6	81.4%	1.9	77.9%	2.0	76.7%	-	-	-	-	-	-
Ulster Independent Clinic [3]	_	-	-	-	-	-	_	-	_	_	_	-	-	-	-	-
University Hospital of Derby and Burton NHS Foundation Trust [1]	_	-	_	_	_	_	_	_	_	_	_	-	-	_	-	-
University Hospital Southampton NHS Foundation Trust [2]	_	-	-	-	_	_	_	_	_	_	_	-	-	-	-	-
University Hospitals Bristol and Weston NHS Foundation Trust [1]	_	-	_	_	_	_	_	_	_	_	_	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of Leicester NHS Trust [1]	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	2		-	6.0	3.0	50.0 _%	3.0	50.0%	5.0	16.7%	-	-	-	-	-	-
University Hospitals Plymouth NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Sussex NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-
Warrington and Halton Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Hertfordshire Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Western Health and Social Care Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcestershire Acute Hospitals NHS Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yeovil District Hospital NHS Foundation Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Teaching Hospital NHS Foundation Trust [6]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
174 trusts found for Cardiomyotomy Surgery (Achalasia) sorted by name (a	lphabetical	ly ascending).														

* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

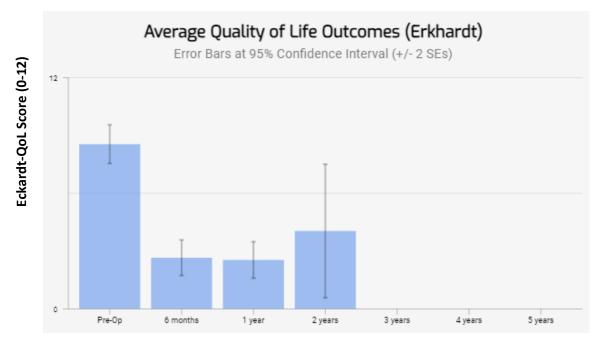
Cardiomyotomy- All Centres Data

*To appear in statistical analysis the patient must have a complete or in PROM









Cardiomyotomy Surgery										
Total					-	30				
Sex										
Male/Female/Other	1	.6			1	4			-	
Age		-								
Median						51				
Range					25	5-78				
Episodes										
Day Case						0				
Inpatient						100%)				
Time on Waiting List										
Median (Days)					(60				
Range (Days)						386				
Method										
Open						-				
Laparoscopic					30 (100%)				
Robotic					(-				
Converted						-				
Hiatus Hernia		Y	′es					No		
Present										
			4					26		
Hiatal Defect	Type A (<	3 cm)	Тур	e B (3-60	cm)	Type	C (>6-9cn	n) Ty	pe D) (>9cm)
	22	-		8			-		-	-
Hiatal Repair	Primary	P	ledget/	Strip	On-Lay	y Mesh	Bridgi	ng		Crural
-	Suture		Mesł	1			Mesh		R	elaxation
	29		1			-		-		-
Fundoplication Type	None	Anteri	ior A	nterior	Ant	erior	Posteric	or Poster	rior	360°
		Partia	al F	Partial	Ра	rtial	Partial	Parti	al	Complete
		90°		120°	18	80°	180°	270	٥	
	-	2		1	2	23	2	1		-
Gastroplasty		١	Yes					No		
			-					-		
Length of Stay (Days)										
Median						2				
Range					1	-33				
Complications										
Morbidity (Overall)					1 (3	3.3%)				
Return to Theatre						1				
Readmission						-				
Mortality						-				
QoL Outcomes										
	Ν	Mea	an (x̄)	Rar	nge	9	SD	SE		95% CI
Pre-Procedure QoL	30		7.4		12	2	.2`	0.4		6.6-8.2
6 Month QoL	16		2.3	1-	-6	1	.5	0.4		1.5-3.1
1 Year QoL	10		2,2	1-	4		.2	0.4		1.4-3.0
2 Year QoL	2		3.5	2-	-5	2	2.1	1.5		0.5-6.5
3 Year QoL	-		-				-	-		-
				1		1				
4 Year QoL	-		-	-	-		-	-		-

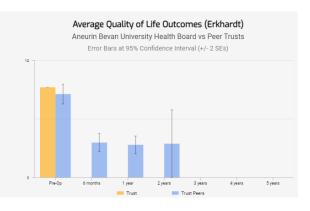
Cardiomyotomy (Achalasia)- Patient Reported Outcome Measures (PROMs) Eckardt Score 0-12

Reported Outcome Measures (PROMs) NHS Trusts- (Trust vs Peer Trusts)

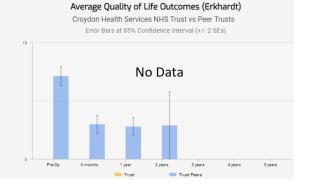
Included- NHSR registered NHS Trusts who have entered at least 1 patient into any NHSR reporting catorgery Excluded- NHSR registered NHS Trusts that have not entered any patients into any catorgery *To appear in statistical analysis the patient must have a complete status or in PROM status

*Outcome data may or may not be representative of all activity in a specific Trust/Organisation

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/28	8.0	7.4	8.1% 🕇
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		0.0%	59.5%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 👃



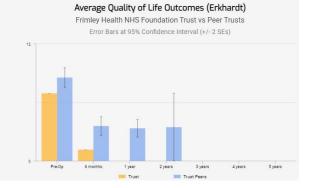
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 👃
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 👃



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 👃
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
0				
Improvement: 🔞		-	59.5%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/28	6.0	7.4	-18.9 % 🖡
6 months:	1/14	1.0	3.1	-67.7 % 🖡
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 😡		83.3%	59.5%	40.0% †
PROM Ratio: 10		100.0%	100.0%	0.0%



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 👃
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
0				
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 👃

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/27	7.5	7.4	1.4 % 🕇
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🚱		0.0%	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0%	-100 % 🖡

Average Quality of Life Outcomes (Erkhardt) Gloucestershire Hospitals NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

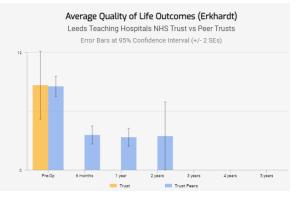
2 years

Trust

3 years

Trust Peers

4 years



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/28	12.0	7.4	62.2 % †
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🕑		0.0%	59.5%	-100 % 👃
PROM Ratio: 🔞		-	100.0 %	-100 % 👃

Average Quality of Life Outcomes (Erkhardt) Manchester University NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/25	5.8	7.4	-21.6 % 🖡
6 months:	2/13	2.0	3.1	-35.5 % 🖡
1 year:	1/9	1.0	2.9	-65.5% 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		82.8%	59.5%	39.2%
PROM Ratio: 🔞		100.0%	100.0%	0.0%

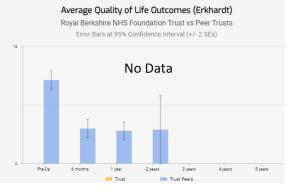
QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡

Average Quality of Life Outcomes (Erkhardt) Portsmouth Hospitals NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

ust Peers

Trust



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



- 59.5 % -100 % L - 100.0 % -100 % L

Average Quality of Life Outcomes (Erkhardt) Northamptonshire Healthcare NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

4 years

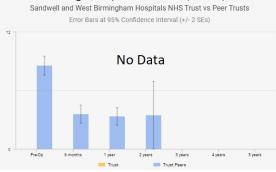
3 years

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	1/28	4.0	7.4	-45.9 🛸 👃
6 months:	1/14	4.0	3.1	29.0% †
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	\overline{a}
4 years:	-/-	-	-	~
5 years:	-/-	-	-	-
Improvement: 🞯		0.0%	59.5%	-100 % 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 👃
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 👃
PROM Ratio: 🔞		-	100.0%	-100 % 🖡

QoL Average Pre-Op: -/29 7.4 -100 % 👃 6 months: -/15 3.1 -100 % 👃 1 year: -/10 2.9 -100 % 👃 2 years: -/2 3.0 -100 % 👃 3 years: -/-_ _ 4 years: -/-_ _ 5 years: -/-_ _ Improvement: 🔞 59.5% -100 % _ PROM Ratio: 🔞 100.0% -100 % 👃 _

77.0					Ĩ		
-			T	T			
-100 % 👃			1				
0.0%							
	0 -	Pre-Op	6 months	1 year	2 years	3 years	4 years
				Trust	-	Trust Peers	
Difference v Peers			Average O		ife Outer	mac (Crl	(h a wed th)
v reels			Average Q	uality of i		THES (ELK	nai utj



Average Quality of Life Outcomes (Erkhardt) Royal United Hospitals Bath NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

5 years



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	4/25	9.8	7.4	32.4 % 🕇
6 months:	3/12	2.3	3.1	-25.8 % 🖡
1 year:	1/9	4.0	2.9	37.9% <mark>†</mark>
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🛛		59.2%	59.5%	-0.5 🛸 🖡
PROM Ratio: 🚱		100.0%	100.0%	0.0%



True

3 years

Pears

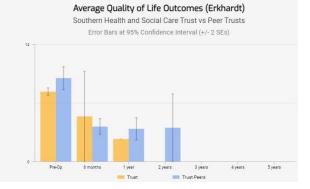
4 years

	-/15	-	3.1	-100 % 🖡
	-/10	-	2.9	-100 % 🖡
	-/2	-	3.0	-100 % 🖡
	-/-	-	-	-
	-/-	-	-	-
	-/-	-	-	-
)		-	59.5%	-100 % 👃
		-	100.0%	-100 % 🖡
Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers

97

5 years

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	6/23	6.2	7.4	-16.2 % 🖡
6 months:	2/13	4.0	3.1	29.0% †
1 year:	2/8	2.0	2.9	-31.0 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	~
Improvement: 🞯		67.7%	59.5%	13.8% †
PROM Ratio: 10		100.0%	100.0%	0.0%



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🚱		-	100.0%	-100 % 👃

QoL Average Scores PROM Qty Trust (Ave.) Peers (Ave.) Difference v Peers Pre-Op: 7.4 -100 % 👃 -/29 _ 3.1 -100 % 6 months: -/15 -/10 2.9 -100 % 👃 1 year: 2 years: -/2 3.0 -100 % 👃 _ 3 years: _ -/-_ 4 vears: _ _ -/-_ _ 5 years: _ _ -/-Improvement: 🔞

PROM Ratio: 🔞

_

_ 100.0%

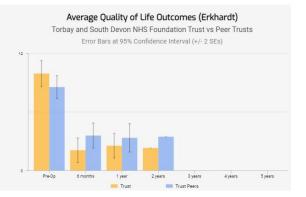
59.5%

-100 %

-100 % 🖡

		Average Q he Dudley G Error Ba		oundation	Trust vs Pe	eer Trusts	
12			N	o Data			
	Ĭ		INC	Data			
	Î			Ĭ			
		Ţ	T				
		1	1				
	Pre-Op	6 months	1 year Trust	2 years	3 years Trust Peers	4 years	5 years

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	7/22	8.6	7.4	16.2 % 🕇
6 months:	6/9	1.8	3.1	-41.9 % 🖡
1 year:	6/4	2.2	2.9	-24.1%
2 years:	1/1	2.0	3.0	-33.3 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🛛		76.7%	59.5%	28.9% †
PROM Ratio: 🞯		100.0%	100.0%	0.0%



Average Quality of Life Outcomes (Erkhardt) St. George's University Hospitals NHS Foundation Trust vs Peer Trusts

Error Bars at 95% Confidence Interval (+/- 2 SEs)

No Data

2 years

3 years

t Peers

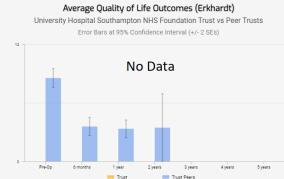
4 years

5 years

12



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



University Hospitals Coventry and Warwickshire NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)

No Data

2 years

Trust

3 years

Trust Peers

4 years

5 years

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 👃
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 👃

QoL Average Scores PROM Qty Trust Peers Difference

	(Trust / Peers)	(Ave.)	(Ave.)	v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🚱		-	59.5%	-100 % 👃
PROM Ratio: 🕑		-	100.0%	-100 % 🖡

Average Quality of Life Outcomes (Erkhardt) University Hospitals Sussex NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs) No Data 3 years 5 years 2 years 4 years + Peers

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	2/27	6.0	7.4	-18.9 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 🖡
2 years:	1/1	5.0	3.0	66.7% <mark>1</mark>
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🞯		16.7%	59.5%	-71.9% 🖡
PROM Ratio: 🔞		100.0%	100.0%	0.0%

Average Quality of Life Outcomes (Erkhardt) University Hospitals of North Midlands NHS Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs)



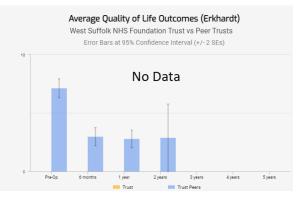
Trust Peers

Trust

Average Quality of Life Outcomes (Erkhardt)

12

QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 🖡
6 months:	-/15	-	3.1	-100 % 🖡
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 🖡



QoL Average Scores	PROM Qty (Trust / Peers)	Trust (Ave.)	Peers (Ave.)	Difference v Peers
Pre-Op:	-/29	-	7.4	-100 % 👃
6 months:	-/15	-	3.1	-100 % 👃
1 year:	-/10	-	2.9	-100 % 👃
2 years:	-/2	-	3.0	-100 % 🖡
3 years:	-/-	-	-	-
4 years:	-/-	-	-	-
5 years:	-/-	-	-	-
Improvement: 🔞		-	59.5%	-100 % 🖡
PROM Ratio: 🔞		-	100.0 %	-100 % 👃

Average Quality of Life Outcomes (Erkhardt) The Dudley Group NHS Foundation Trust vs Peer Trusts Error Bars at 95% Confidence Interval (+/- 2 SEs) No Data Precp 6 months 1 year 2 years 8 years 4 years 5 years

Revisional Anti-Reflux Surgery- All UK Trusts/Private Health Care Organisations

7 registered patients, 5 active, 2 complete, from 5 NHS Trusts/Independent HealthCare Organisations

Cases 10	Morbidity 1 10.00% - - - - - - - -	Mortality - - -	(Mean Ave.) 32.6 -	Score 9.4	*/- 71.2%	2.8	+/- 91.4%	Score 4.0	+/- 87.7%	Score	+/-	Score	+/-	Score	+/
10 	1 10.00% - - - - - - -	-	32.6	9.4	71.2%	2.8	91.4%	4.0	077-	-	-	-			
-	-	-	-					4.0	07.7%	-			-	-	1
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3	-	-	25.0	10.7	57.2%	-	-	-	-	-	-	-	-	-	-
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Royal Berkshire NHS Foundation Trust [1]	-	-	-	-	_	_	_	_	_	-	_	-	-	_	-	-
Royal Cornwall Hospitals NHS Trust [3]	_	-	-	_	-	_	_	_	_	_	_	_	-	_	-	-
Royal United Hospitals Bath NHS Foundation Trust [1]	-			_	_	_	_	_	_	-	_	_	-	_		
Sandwell and West Birmingham Hospitals NHS Trust [2]	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sheffield Teaching Hospitals NHS Foundation Trust [1]	-			-	_	_	-	-	-	-	-	-	-	-		
South Eastern Health and Social Care Trust 121																
South Tees Hospitals NHS Foundation Trust [1]	_	-	-	_	-	-	_	-	-	_	-	-	-	-	-	-
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South Tyneside and Sunderland NHS Foundation Trust [1] South Warwickshire NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Southern Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spire Healthcare Group [16]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. George's University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Josephs Hospital, Newport [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taunton and Somerset NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Dudley Group NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Princess Alexandra Hospital NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Rotherham NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	2	1 50.00%	-	47.5	25.0	47.4%	3.0	93.7%	4.0	91.6%	-	-	-	-	-	-
Ulster Independent Clinic [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital of Derby and Burton NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	1	-	-	42.0	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Bristol and Weston NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of Leicester NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Plymouth NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Sussex NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warrington and Halton Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Hertfordshire Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	3	-	-	25.7	5.0	80.5%	4.0	84.4%	-	-	-	-	-	-	-	-
Western Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcestershire Acute Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yeovil District Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Teaching Hospital NHS Foundation Trust [6]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174 trusts found for Revisional Anti-Reflux Surgery sorted by name (alphabe	tically asc	ending).														

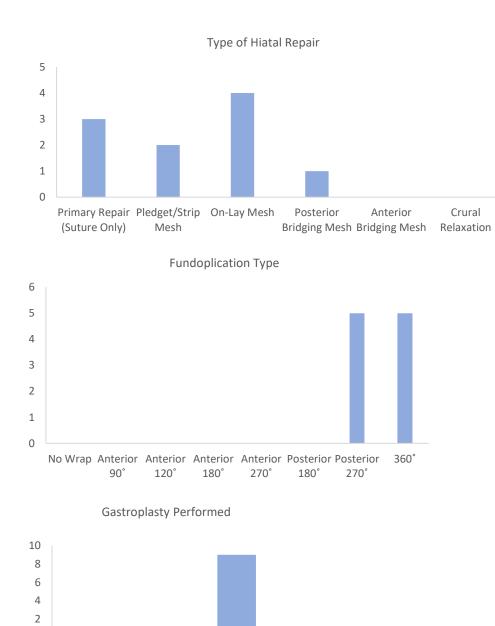
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Revisional Anti-Reflux Surgery- All Centres Data

*To appear in statistical analysis the patient must have a complete or in PROM



9 (3-6cm) Type C (>6- Type D (9cm)



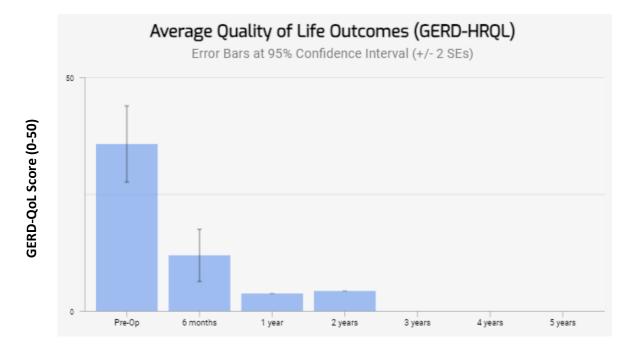


No

0

Yes

Combined UK GERD-QoL Score PROMs- Revisional Anti-Reflux Surgery All NHS Trusts & Independent HealthCare Organisations



Revisional Anti-Reflux Surgery													
Total						<u>0 /</u> LO							
Sex													
Male/Female/Other	5				5	;		T					
Age								<u> </u>					
Median						50							
Range						-69							
Episodes													
Day Case						-							
Inpatient		10 (100%)											
Time on Waiting List													
Median	351												
Range						-896							
Method													
Open						_							
Laparoscopic						L00%)							
Robotic					10 (.	-							
Converted						_							
Recurrence Type					Ш				V		VI		
Recurrence Type	I		1		2	3			4		VI		
Hiatal Defect	- Type A (<3			B (3-6	-	-	C (>6-		-		- >9cm)		
Thatal Delect	Type A (<5	ciii)	Type	D (5-0	ociii)		c (>o- :m)		туŀ	ые D (л	^y sciii)		
	2	2 7 1											
Hiatal Repair	Primary		edget/S		Onla					-	rural		
	Suture		Mesh		UII-La	VIVIESII					Aesh		axation
	3		2			4			1				
Fundoplication Type	Anterior	Ant	erior	Ant	terior	-	Posterior		osterior		- 360°		
Fundoplication Type	Partial 90°	-	rtial			Poster	-		Partial		omplete		
	Faitial 90		ונומו	гσ	artiar		ai	F	artiar		ompiete		
				1	80°		•		270°				
	_		20°	1	.80°	180	°		270°		5		
Gastroplasty	-	1	20° -	1	.80° -		•		5		5		
Gastroplasty	-	17 Y	20° - ′es	1	.80° -	180	P		5 No		5		
	-	17 Y	20° -	1	.80° -	180	P		5		5		
Length of Stay	-	17 Y	20° - ′es	1	-	180	°		5 No		5		
Length of Stay (Days)	-	17 Y	20° - ′es	1	-	- 180	°		5 No		5		
Length of Stay (Days) Median	-	17 Y	20° - ′es	1	-	180 - 1	°		5 No		5		
Length of Stay (Days) Median Range	-	17 Y	20° - ′es	1	-	- 180	°		5 No		5		
Length of Stay (Days) Median Range Complications		17 Y	20° - ′es	1	- 1	180 - 1 - -	°		5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall)	-	17 Y	20° - ′es	1	- 1. 1.(1	180 - 1 -23	•		5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre		17 Y	20° - ′es	1	- 1 1 (1 1 (1	180 - 1 -23 	°		5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90		17 Y	20° - ′es	1	- 1 1 (1 1 (1	180 - 1 -23	•		5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days)		17 Y	20° - ′es		- 1 1 (1 1 (1	180 - 1 -23 	•		5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90		17 Y	20° - ′es	1	- 1 1 (1 1 (1	180 - 1 -23 10%) 10%) 00%)	•		5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality	-	11 Y	20° - 'es 1		- 1 1 (1 (1 (1 (1))	180 - 1 -23 10%) 10%) 00%)			5 No		5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality	N	11 Y	20° - 'es 1	Ra	- 1 (1 1 (1 1 (1 1 (1 ange	180 - - - - - - - - - - - - - - - - - - -			5 No 9		95% CI		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality QoL Outcomes	N 10	1: Y	20° - 'es 1 1 2.9	Ra	- <u>1</u> <u>1</u> (1 <u>1</u> (1 <u>1</u> (1 <u>1</u> (1 <u>1</u> (1) <u>1</u> (1) (1) <u>1</u> (1)) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	180 - - - - - - - - - - - - - - - - - - -	2		5 No 9 		95% CI 5.2-40.6		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality QoL Outcomes Pre-Procedure QoL 6 Month QoL	N 10 6	1: Y	20° - 'es 1 1 2.9 1.0	Ra 12 4	- <u>1</u> <u>1</u> (1 <u>1</u> (1 <u>1</u> (1 <u>1</u> (1) <u>1</u> (2) <u>1</u> (2)	180 - - - - - - - - - - - - - - - - - - -	2		5 No 9 		95% Cl 5.2-40.6 i.0-18.0		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality QoL Outcomes Pre-Procedure QoL 6 Month QoL 1 Year QoL	N 10 6 2	1: Y	20° - 1 1 2.9 1.0 5.5	Ra 17 4	- 1. 1 (1 1 (1 1 (1 1 (1 - 25 3-4	180 - - - - - - - - - - - - - - - - - - -	2		5 No 9 SE 3.0 3.5 0.5		95% CI 5.2-40.6		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality QoL Outcomes Pre-Procedure QoL 6 Month QoL 1 Year QoL 2 Year QoL	N 10 6	1: Y	20° - 'es 1 1 2.9 1.0 3.5 4.0	Ra 17 4	- 1 (1 1 (1 1 (1 1 (1 1 (1 1 (1 1 (1 1 1 (1 1 1 (1) 1 (1) 1 1 (1) (1)	180 - - - - - - - - - - - - - - - - - - -	2		5 No 9 		95% Cl 5.2-40.6 9.0-18.0 2.5-4.5		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality QoL Outcomes Pre-Procedure QoL 6 Month QoL 1 Year QoL 2 Year QoL 3 Year QoL	N 10 6 2 1	1: Y	20° - 1 1 2.9 1.0 5.5	Ra 17 4	- 1. 1 (1 1 (1 1 (1 1 (1 - 25 3-4	180 - - - - - - - - - - - - - - - - -	2		5 No 9 SE 3.0 3.5 0.5 -		05% Cl 5.2-40.6 1.0-18.0 2.5-4.5 -		
Length of Stay (Days) Median Range Complications Morbidity (Overall) Return to Theatre Readmission (90 days) Mortality QoL Outcomes Pre-Procedure QoL 6 Month QoL 1 Year QoL 2 Year QoL	N 10 6 2 1 -	1: Y	20° - 'es 1 - - 2.9 1.0 3.5 1.0 -	Ra 17 4	- 1 1 (1 1 (1 1 (1 1 (1 - 25 3-4 4-4 -	180 - - - - - - - - - - - - - - - -	2		5 No 9 		95% Cl 5.2-40.6 i.0-18.0 2.5-4.5 - -		

Revisional Hiatus Hernia Surgery- All UK Trusts/Private Health Care Organisations

16 registered patients, 3 active, 13 complete, from 6 NHS Trusts/Independent HealthCare Organisations

rust/Organisation Name	Complete	Morbidity	Mortality	Pre-Op QoL	6 mor	vernent	1 yea	er QoL	2 yea	r QoL	3 year	r QoL	4 year	r QoL ement	5 year	r Q
	Cases	Morbiality	montainty	(Mean Ave.)	Score	+/-	Score	+/-	Score	+/-	Score	+/-	Score	+/-	Score	+
verall Trusts/Organisations	13	-	-	28.2	5.1	81.9%	5.4	80.9%	-	-	-	-	-	-	-	ľ
neurin Bevan University Health Board [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
spen Healthcare [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
larking, Havering and Redbridge University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ledfordshire Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
elfast Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
letsi Cadwaladr University Health Board [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MI Healthcare [14]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
urcot Hall Bromsgrove [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
alderdale and Huddersfield NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ambridge University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
helsea and Westminster Hospital NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
hesterfield Royal Hospital NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ounty Durham and Darlington NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
roydon Health Services NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
artford and Gravesham NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
psom and St. Helier University Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	
fe NHS [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orth Valley NHS [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
rimley Health NHS Foundation Trust [4]	_	-	-	_	-	_	_	-	_	-	-	-	-	-	-	
ateshead Health NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
loucestershire Hospitals NHS Foundation Trust [3]	2		-	33.0	7.0	78.8%	6.0	81.8%	-	-	-	-	-	-	-	
uy's and St. Thomas' NHS Foundation Trust [2]	_	-	-	-	-	-	-	_	_	-	-	-	-	-	-	
ampshire Hospitals NHS Foundation Trust [2]	_	-	-	_	_	-	_	_	_	_	_	_	_	-	_	
ull University Teaching Hospitals NHS Trust [1]	_		-	_	_	_	_	_	_							
ettering General Hospital NHS Foundation Trust [1]	_			_	_	_	_	_	_		_		_		_	
ing's College Hospital NHS Foundation Trust [1]																
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ingsbridge Private Hospital Belfast [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ancashire Teaching Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
eeds Teaching Hospitals NHS Trust [3]	2	-	-	30.5	8.0	73.8%	7.5	75.4%	-	-	-	-	-	-	-	
wisham and Greenwich NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ondon Bridge Hospital [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lanchester University NHS Foundation Trust [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lid and South Essex NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
lid Yorkshire Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ew Victoria Hospital [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orth Bristol NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orth Cumbria Integrated University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthamptonshire Healthcare NHS Foundation Trust [3]	1	-	-	43.0	2.0	95.3 _%	-	-	-	-	-	-	-	-	-	
orthern Devon Healthcare NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthern Lincolnshire and Goole NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
orthumbria Healthcare NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ottingham University Hospitals NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
uffield Health [13]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ford University Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ortsmouth Hospitals NHS Trust [4]	-	-	-	_	-	-	-	-	_	-	-	-	-	-	-	
amsay Health Care UK [11]																

Royal Berkshire NHS Foundation Trust [1] Royal Cornwall Hospitals NHS Trust [3] Royal United Hospitals Bath NHS Foundation Trust [1]	-	-	_													
	-	-														
Royal United Hospitals Bath NHS Poundation Trust [1]				-	-	-	-	-	-	-	-	-	-	-	-	-
Sandwell and West Birmingham Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sheffield Teaching Hospitals NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Eastern Health and Social Care Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Tees Hospitals NHS Foundation Trust [1]	4	-		25.8	7.0	72.9%	7.3	71.7%	-	-	-	-	-	-	-	-
South Tyneside and Sunderland NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Warwickshire NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southern Health and Social Care Trust [1]	3	-		26.3	3.0	88.6%	-	-	-	-	-	-	-	-	-	-
Spire Healthcare Group [16]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. George's University Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St. Josephs Hospital, Newport [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taunton and Somerset NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Dudley Group NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Princess Alexandra Hospital NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Rotherham NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Torbay and South Devon NHS Foundation Trust [6]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ulster Independent Clinic [3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital of Derby and Burton NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospital Southampton NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Bristol and Weston NHS Foundation Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Coventry and Warwickshire NHS Trust [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of Leicester NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals of North Midlands NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Plymouth NHS Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
University Hospitals Sussex NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warrington and Halton Hospitals NHS Foundation Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Hertfordshire Hospitals NHS Trust [2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Suffolk NHS Foundation Trust [2]	1	-	-	15.0	1.0	93.3%	-	-	-	-	-	-	-	-	-	-
Western Health and Social Care Trust [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcestershire Acute Hospitals NHS Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yeovil District Hospital NHS Foundation Trust [1]	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
York Teaching Hospital NHS Foundation Trust [6]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174 trusts found for Revisional Hiatus Hernia Surgery sorted by name (alphabeti	ically ascent	ling).														

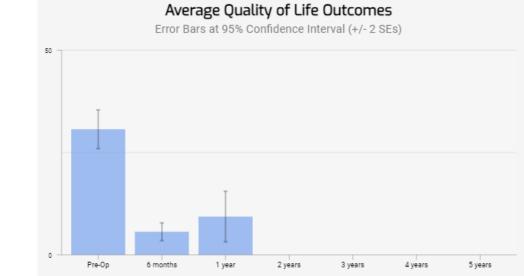
* Outcome data may or may not be representative of all activity in a specific Trust/Organisation.

Revisional Hiatus Hernia Surgery- All Centres Data

*To appear in statistical analysis the patient must have a complete or in PROM



Combined UK Hiatus Hernia-QoL Score PROMs- Revisional Hiatus Hernia Repair All NHS Trusts & Independent HealthCare Organisations



Hiatus Hernia-QoL Score (0-50)

	Re	visi	iona	l Hia	atus H	ernia	Repai	r							
Total	Ι						13								
Sex															
Male/Female/Other		5					8				-				
Age		-		I			-								
Median							66								
Range							37-78								
Episodes															
Day Case						1	(7.7%)								
Inpatient		12 (92.3%)													
Time on Waiting List															
Median (Days)		237													
Range (Days)						4	13-966								
Method															
Open							_								
Laparoscopic						13	(100%)								
Robotic						13	-								
Converted															
Hiatus Hernia Type	Tva	be III			Type	III (Int	ra-Thor			Tv	pe	IV/			
matus nerma rype	I YF	Je m			туре			acit-		iy	he	IV			
	Stomach) 9 2 2														
Hiatal Defect	Type A (<	-	2)	Tyr	be B(3-6	Scm)		C (>6-9c	m)	Typ		(>9cm)			
	2	5 (11	''	יאר	8	Junij	турс	3	Ocm) Type D (>9cm)						
Hiatal Repair	Primary	,	DIO	daat	/Strip	On-L	ay Mesh		Ting	Crural					
	Suture		FIC	Mes	-	OII-L	ay iviesi		Bridging Mesh Cru Relax						
	50000			-			6		2			-			
Fundoplication	None	Ant	terio	r A	nterio	Δn	terior	Posteri		Posteri	or	360°			
Туре	None		artial		Partial		artial			Partia		Complete			
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			90°		120°		L80°	180°		270°		complete			
	1	-	3		1	-	1	-		3		4			
Gastroplasty	-		Ye	20	-		1 I			No					
Cachephacty										13					
Length of Stay										10					
Median (Days)							3								
Range (Days)							3-4								
Complications							54								
Morbidity (Overall)							_								
Return to Theatre							_								
Readmission (90						1	(7.7%)								
days)						-	(7.770)								
Mortality							-								
QoL Outcomes															
	N	N Mean (X) Range SD SE						Mean (x)			Range		SE.		95% CI
Pre-Procedure QoL	13	+	28.2			5-43	-	7.9		2.2		23.8-32.6			
6 Month	9	+	5.2			-10		3.0			+	3.2-7.2			
1 Year QoL	5	+	5.2 8.6			-19		5.4		1.0 2.8		2.9-14.3			
2 Year QoL	-	+	-			-		-	-						
3 Year QoL	_	+								-		-			
4 Year QoL	_	+	-		-						+				
5 Year QoL		+	-			-		-				-			
			-			-		-	-			-			

8. Conclusion and Summary

Currently, the NHSR Registry voluntarily submits data, and the level of engagement is variable. There are several potential causes of bias in this report; the data submitted may or may not be representative of an entire individual, centre/unit, dependent on the level of engagement. Early adopters of this Registry are potential higher performers in hiatal surgery; it perhaps couples with interest and performance in this area.

Parts of the data collection are self-reporting and thus vulnerable to bias, these include entering all cases and complications. However, one of the most exciting elements of this Registry, QoL improvement data, is populated independently of the surgeon by the intrinsic mechanism of the NHSR and thus is independent, high-quality feedback data.

Currently, the centres that have engaged the NHSR report remarkable improvement in patient-reported QoL outcomes post-operatively for all aspects of benign hiatal surgery. Significant improvement in QoL score are shown from the pre-procedure baseline in all sub-sets of hiatal surgery bringing validation to the quality of surgery being performed by submitting centres.

Data is currently limited as the Registry is in the infancy of its growth, and only those patients with complete status or in PROMs can be included for statistical analysis. Many patients are still in the 'active' stage, but these will filter through with time.

In terms of ambitions for the future, as more data populates, we hope to report more detailed outcomes in terms of techniques used for hiatal surgery, fundoplication type, mesh technique, robotic hiatal surgery etc, at a national level.

We are currently working with GIRFT (<u>Getting It Right First Time – GIRFT</u>) and NHS Digital about integrations with HES data to cross reference activity in hiatal surgery to address the vulnerability of self-reporting volume of activity and complication rates.

We are also working with providers of Electronic Patient Record Systems (EPRs) to integrate and allow use of NHSR in a paperless hospital.

Finally, the NHSR hopes to publish a public-facing page detailing the outcome of hiatal surgery for different centres in both NHS and Private healthcare organisations in the UK.